

BUSINESS WEEK

INDEX ON PAGE 24

GOP Brain Trusts

HOW THE STUDY
COMMISSIONS WORK
PAGE 90

275

250

225

200

175

150

125

100

75

50

25

0

←
INDEX
YEAR
AGO



Killion and Davies of President Lines: They knew nothing of ships (page 186)

A MCGRAW-HILL PUBLICATION

OCT. 10, 1953

TWENTY-FIVE CENTS



MAKING BETTER TIME...now that the heat's off!

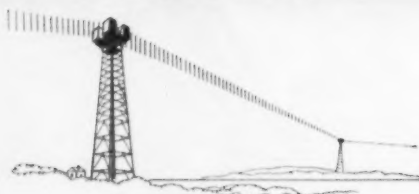
The old-timer is exceedingly proud of his railroad—and with justice! Time was when the freights were a lot shorter—and slower! That was before the bearing industry, in cooperation with railway equipment engineers, virtually eliminated the troublesome "hot-box" with modern, anti-friction roller bearing journal boxes. ☆ And now, Bower roller bearings are available to America's railroads to help them carry more payload at greater speeds. Supplied by the Franklin Balmar Corporation, Bower-Franklin journal boxes are equipped with dependable Bower straight roller bearings. These high-quality bearings have already *proved* themselves in numerous other types of heavy-duty equipment—steel rolling mills, heavy trucks, earthmovers, cranes, shovels and railroad generator drive units, to mention but a few. ☆ Whatever *your* product, if it uses bearings, contact Bower now! Experienced engineers will show you a complete line of tapered, straight and journal roller bearings.

BOWER ROLLER BEARING COMPANY • DETROIT 14, MICHIGAN

BOWER

ROLLER BEARINGS





Building Sky Paths for Words and Pictures

A distant voice you heard today, or a TV show from afar may well have reached you over radio relay equipment made by Western Electric. For telephone calls and television programs nowadays leap across the continent from tower to tower by Bell telephone radio relay equipment, and we manufacture the equipment which does the job. We want you to know about Western Electric's part in such stirring and progressive achievements—and to know, too, of the teamwork that produces them.

Here is how it works: Bell Laboratories people *design* something new and better—Western Electric people *make* it as well and as efficiently as possible—and Bell telephone company people *operate* it to give you service that grows steadily better and more valuable.

Western Electric



A UNIT OF THE BELL SYSTEM SINCE 1882

B U S I N E S S W E E K

EDITOR & PUBLISHER Elliott V. Bell
MANAGING EDITOR Edgar A. Grunwald
EXECUTIVE EDITOR Kenneth Kramer

ASSISTANT MANAGING EDITOR Robert B. Colborn
ASSOCIATE MANAGING EDITOR John L. Cobbs
ASSOCIATE MANAGING EDITOR Peter French

DEPARTMENTS

Business Outlook: Clark R. Pace, *Editor*
Commodities: Gertrude Charloff, *Editor*
Finance: William McKee Gillingham, *Editor*; Paul D. Gesner
Foreign: Howard Whidden, *Editor*; Paul R. Miller, Jr., George F. King, Jr.
Industrial Production: Charles M. Garvey, *Editor*; George J. Gray, Jr.
Labor: Merlyn S. Pitzele, *Editor*; Edward T. Townsend
Management: Richard L. Waddell, *Editor*; John R. Thomas
Marketing: Carl Rieser, *Editor*; Cora Carter, Richard M. Wight
Personal Business: Guy Shipley, Jr., *Editor*
Regions: Richard M. Machol, *Editor*
Research: John K. Fockler, *Editor*
Illustration: Harry Jensen, Kate McSweeney, *Editors*; Richard A. Wolters (*Pictures-Photography*), Robert Isear, Herbert F. Kratochvil, Jomary Mosley, Arthur Richter
Special Projects: Frank J. Fogarty
The Trend: M. J. Rossant
Library: Dorothy Roantree, *Librarian*; Emily Cherry, Ruth Callanan
Assistant to the Editor & Publisher: John F. Hartshorne

NEWS EDITORS

Marilyn T. Benjamin, T. B. Crane, Robert F. Deed, Maxwell D. Gunther, Doris I. White

EDITORIAL ASSISTANTS

Edward J. Burgess, Jr., David B. Carlson, Marguerite G. Cronin, Elsa Denno, D. A. Drennen, Jean Drummond, Alice Marks, Mary Maguire, Dorothea Schmidt

ECONOMICS STAFF

Dexter M. Keezer, *Director*; Peter J. Davies, Richard Everett, Howard C. Gary, Douglas Greenwald, Margaret Matulis, Robert P. Ulin

DOMESTIC NEWS SERVICE

Chicago Bureau: James M. Sutherland, *Manager*; Mary B. Stephenson, Dorothy Miller
Cleveland Bureau: Robert E. Cochran, *Manager*; Jean H. Henderson
Detroit Bureau: William Kroger, *Manager*
Houston Bureau: Eugene Miller, *Manager*
Los Angeles Bureau: Thomas M. Self, *Manager*
Pittsburgh Bureau: Richard N. Larkin, *Manager*
San Francisco Bureau: Richard Lamb, *Manager*; Joanne O'Brien
Washington Bureau: George B. Bryant, Jr., *Manager*; Glen Bayless, Carter Field, Jay Flocken, Boyd France, Joseph Gambatese, Sam Justice, William H. Kearns, John L. Kent, Donald O. Loomis, Jesse Mock, Gladys Montgomery, Arthur L. Moore, Morton A. Reichel, Caroline Robertson, Vincent Smith, W. B. Whitchard, Jr.
Correspondents: Akron, Albany, Atlanta, Austin, Baltimore, Birmingham, Boston, Buffalo, Charleston, Charlotte, Cincinnati, Columbus, Dallas, Denver, Des Moines, Duluth, Fort Worth, Greensboro, Hartford, Jacksonville, Kansas City, Knoxville, Little Rock, Memphis, Milwaukee, Minneapolis, Nashville, New Orleans, Oklahoma City, Orono, Philadelphia, Phoenix, Portland, (Ore.), Providence, Richmond, Rochester, Salt Lake City, San Antonio, San Diego, Seattle, St. Louis, Syracuse, Toledo, Wilmington, Worcester, Honolulu.

FOREIGN NEWS SERVICE

Editor: Joseph K. Van Denburg, Jr.
Frankfurt: Gerald W. Schroder
London: Nathaniel McKitterick
Manila: Herbert Leopold
Correspondents: Amsterdam, Athens, Bangkok, Beirut, Belgrade, Bogota, Bombay, Brussels, Buenos Aires, Cairo, Caracas, Ciudad Trujillo, Copenhagen, Djakarta, Durban, Geneva, Guatemala City, Havana, Helsinki, Istanbul, Johannesburg, Karachi, La Paz, Lima, Madrid, Melbourne, Oslo, Ottawa, Panama City, Quito, Reykjavik, Rome, Salzburg, San Juan, San Salvador, Santiago, Stockholm, Sydney, Tehran, Tel Aviv, Wellington, Winnipeg.
Mexico City: John Wilhelm
Paris: Ross Hazeltine
Sao Paulo: Lionel J. Holmes
Tokyo: Alpheus W. Jessup

ADVERTISING & BUSINESS MANAGER Herman C. Sturm

BUSINESS WEEK • OCT. 10 • NUMBER 1258

(with which are combined The Annalist and the Magazine of Business) • Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw (1860-1948), Founder • Publication Office, 99-125 North Broadway, Albany, N. Y. • Editorial, Executive and Advertising Offices, 120 West 42nd St., New York 36. • Donald C. McGraw, President; Willard Chevalier, Executive Vice-President; Joseph A. Gerardi, Vice-President and Treasurer; John J. Cooke, Secretary; Paul Montgomery, Senior Vice-President, Publications Division; Ralph B. Smith, Vice-President and Editorial Director; Nelson Bond, Vice-President and Director of Advertising. Subscriptions: Address correspondence regarding subscriptions to J. E. Blackburn, Jr., Vice-

President and Director of Circulation, Business Week, 99-125 N. Broadway, Albany 1, N. Y., or 330 West 42nd St., New York 36. Allow one month for change of address. Subscriptions to Business Week are solicited only from management-men in business and industry. Position and company connection must be indicated on subscription orders. Single copies 25c. Subscription rates—United States and possessions \$6.00 a year; \$12.00 for three years. Canada \$7.00 a year; \$14.00 for three years. Other Western Hemisphere countries \$12 a year; \$30.00 for three years. • All other countries \$25 a year; \$50.00 for three years. • Entered as second class matter Dec. 4, 1936, at the Post Office at Albany, N. Y. under Act of Mar. 3, 1879. • Printed in U. S. A. Copyright 1953 by McGraw-Hill Publishing Co., Inc.—All Rights Reserved.

"That buyer in Buffalo was always 'busy' until an officer of our bank—Marine Midland—smoothed the way.."



"... After I got in, I picked up information that I think may help us sell this company in the future."

Service of this kind can often be given to your representative if The Marine Midland Trust Company of New York is your bank.

There are 12 Marine Midland Banks with 122 offices serving 60 New York State communities. Their officers know local people and business as only local residents can. Let us show you how their on-the-spot "next-door-neighbor" knowledge can be helpful to your business.

The
**MARINE MIDLAND
TRUST COMPANY**
of New York

120 BROADWAY • NEW YORK
Member Federal Deposit Insurance Corporation

TAPE TURNS THE TEMPERATURE OUTSIDE IN

Now you can quickly tell the *outside* temperature *inside* the house—thanks to a new thermometer and a special “Scotch” Brand tape that resists weathering.

The tape fastens the thermometer to the outside of your windowpane, and holds it there—tight against the glass, in rain, snow or heat.

Robert Bradley Co., Waltham, Mass., manufacturers of the “Easy-To-See” Windowpane Thermometer, looked long and hard for the right mounting method. They tried suction cups, rubber gaskets, adhesives. Then they turned to tape.

And, like thousands of other manufacturers, they found what they were after in one of the over 300 different tapes in the “Scotch” Brand family.

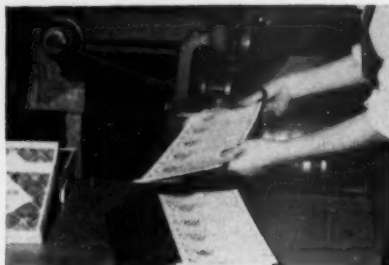
You see, “Scotch” is the brand name for the world’s most complete line of pressure-sensitive tapes. You’d be surprised what these hundreds of tapes can do—how they can speed-up production, cut costs, improve your product.

We’ll show you. Just mail the coupon on the next page. We’ll show you how others have saved, and how you can, too. No charge or obligation, of course. Clip the coupon now, while you’re thinking about it.

...AND TAPE WORKS MORE WONDERS FOR INDUSTRY THAN YOU'D EVER BELIEVE!



TAPE THAT'S A STRAPPING SUCCESS: Lumber mills bundle veneer door rails and siding *safely* with a “Scotch” Brand tape that’s strong enough to tow a truck. Remember: tape can replace conventional banding.



TAPE THAT BENDS OVER BACKWARDS: Bookbinders find a “Scotch” Brand Acetate Fibre Tape has greater flexibility for bindings, doesn’t crack or break, adheres instantly. Remember: tape can make a hinge.



TAPE THAT SPELLS WORDS: Aluminum door handles are stamped “push” or “pull” through a strip of “Scotch” Brand tape made from colored plastic film. Tape sticks tight in recessed letters. Remember: tape can identify.

REG. U.S. PAT. OFF.
SCOTCH
BRAND

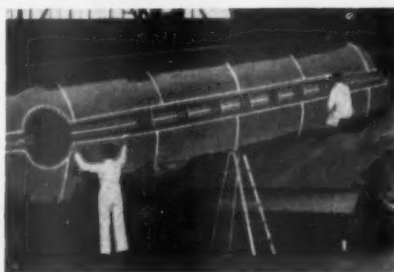
...over 300 pressure-sensitive tapes...engineered to meet industry's needs!



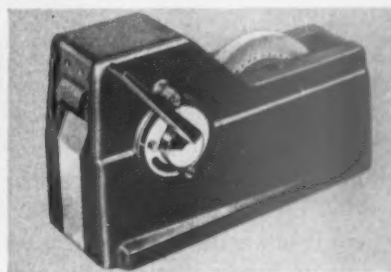
The term “Scotch” and the plaid design are registered trademarks for the more than 300 pressure-sensitive adhesive tapes made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn.—also makers of “Scotch” Sound Recording Tape, “Underseal” Rubberized Coating, “Scotchlite” Reflective Sheeting, “Safety-Walk” Non-slip Surfacing, “3M” Abrasives, “3M” Adhesives. General Export: 122 E. 42nd St., New York 17, N. Y. In Canada: London, Ont., Can.



TAPE THAT TRAPS RIVETS: Hundreds of rivets at a time are held in hammering position by a "Scotch" Brand Pressure-Sensitive Tape with adhesive only along the edges. Remember: tape can be *specially designed*.



TAPE THAT TRIMS SHIPS: Major airlines insist on "Scotch" Brand Masking Tape when painting color designs on fuselages. Tape gives clean, sharp lines — strips off easily. Remember: tape can *speed painting*.



OVER 85 DISPENSERS — like this streamlined model that delivers pre-cut lengths — are ready to speed application of "Scotch" Brand tapes. If necessary, we'll even *design* the dispenser you need!

GET THE ANSWERS TO YOUR QUESTIONS ON TAPE...FREE!

Jot your question down on this coupon, and mail it with your letterhead today. We will be glad to help you—show you new ways to save with "Scotch" Pressure-Sensitive Tapes. No charge or obligation, of course.

Minnesota Mining & Manufacturing Co., Dept. BW-103B
Saint Paul 6, Minnesota

I would like to know more about tape for.....

Name.....Firm.....

Address.....City.....Zone.....State.....

IDEAS from RCA



NOW "PRIVATE-WIRE" TELEVISION at a Down-to-Earth Price

YOU'VE thought of television for your business—but you never expected to see a system so compact—so reasonably priced as RCA's new TV Eye "private-wire" television.

Yet, here it is—a tiny camera you can hold in your hand and a control unit no bigger than a table radio. After completing simple wiring procedures, just plug into a 110-volt A.C. outlet, and your TV Eye system is in operation—producing a clear, clean picture . . . to watch processes, improve training, check progress, identify visitors, promote safety, show displays and charts.

Because it's so compact and so simple—you can move your RCA TV Eye from one location to another on a moment's notice. Because it's engineered for industry by RCA—you can depend on it for continuous, day-in, day-out operation.

Put your imagination and RCA TV Eye to work on your most difficult business problem—put TV Eye to work as an exciting new idea in merchandising. You'll find it more than pays its way every day in stores, factories, institutions, hotels, hospitals, schools, offices, and homes.

Contact your RCA Electronics Distributor for information and prices on RCA's new TV Eye. **Write today** for literature on TV Eye. RCA Engineering Products, Dept. 26V, Building 15-1, Camden, N.J.

RCA TV Eye camera weighs less than five pounds. May be mounted on tripod or placed on a bracket. Fits anywhere, operates anywhere



RCA TV Eye control unit weighs only 14 lbs. Measures 11" x 8" x 6". Can be operated by any member of your staff

TV Eye can bring new efficiency to job training techniques. TV Eye permits large groups to see at close-up range every detail of complicated tasks heretofore limited to individual observation

IDEAS from RCA



PLANT SOUND SYSTEM PROVES UP

Personnel men used to say, "We think work music is an important answer to high production costs." Now, the figures are in, and they make an impressive argument for sound in the plant. In recent checks, RCA discovered work music, provided by an RCA Sound System, "relieved monotony"—increased efficiency. (When music was cut off, rejects increased.) Results like these are evidence of RCA's broad background in the techniques of enjoyable in-plant listening.

IDEAS from RCA



5 TRUCKS DO THE WORK OF 7 WITH RCA 2-WAY RADIO

Industrial trucks can (and do) pay off when they're available 100% of the time. At Standard Pressed Steel of Jenkintown, Pa., dispatcher keeps in contact with all trucks—locates operators and dispatches trips without deadheading—with RCA 2-Way Radio. Before radio was installed, Standard Pressed Steel planned a seven-truck fleet to take care of its heavy materials handling load. With RCA 2-Way Radio, five trucks do the job.

IDEAS from RCA



NOW MAKE YOUR OWN SOUND FILMS

RCA now puts two ideas to work in its new magnetic recorder-projector—(1) the finest in 16mm projectors and (2) the speed and savings of magnetic recording. Using a magnetic stripe, applied to film, this new projector lets you add your own sound to new or old films—lets you make a complete sound film for less than \$1,000. Change your sound track at any time. Play it back instantly. Use it to make a single film talk to various audience levels.

IDEAS from RCA



METAL DETECTOR PROBES THROUGH ROCK

RCA Electronic Metal Detector—for years the standard method of locating stray metal in foods, textiles, plastics, rubber, tobacco, and explosives—has recently taken on a man-sized job in a rock quarry. Its assignment? Locating digger teeth and drill bits to prevent damage to crushers. For normal, in-plant applications, the RCA Metal Detector searches through bulk material or packaged goods to find metal contamination as small as a steel sphere, 0.039" diameter.

SEND FOR THESE INFORMATIVE BOOKLETS

Write: RCA Engineering Products, Dept. 26V, Building 15-1, Camden, New Jersey

- | | |
|--|---|
| <input type="checkbox"/> RCA TV Eye | <input type="checkbox"/> RCA Modernphone |
| <input type="checkbox"/> RCA 2-Way Radio | <input type="checkbox"/> RCA Microwave |
| <input type="checkbox"/> RCA Magnetic Recorder-Projector | <input type="checkbox"/> RCA Sound |
| <input type="checkbox"/> RCA Metal Detector | <input type="checkbox"/> RCA Broadcast Equipment |
| <input type="checkbox"/> RCA Electron Microscope (Model EMT) | <input type="checkbox"/> RCA Audio-Visual Products |
| <input type="checkbox"/> RCA Industrial TV | <input type="checkbox"/> RCA Scientific Instruments |



RADIO CORPORATION of AMERICA

ENGINEERING PRODUCTS DEPARTMENT

CAMDEN, N.J.

The All New **MOBILIFT** 4000 Pounder

Has Everything You Want in a
"Sit-Down" FORK LIFT TRUCK

Here are Just a
Few of the Trend-
Setting Features...

- ◆ Chrysler 65-bhp 6-cyl. Gas Engine
- ◆ Chrysler Gyrol Fluid Coupling
- ◆ Mobil-Matic Drive for smooth, positive power transmission through the MOBILIFT Oil-Immersed, Multiple-Disc Clutch and Constant-Mesh Transmission—Two speeds forward, two reverse.
- ◆ One Lev-R-Matic Control for forward and reverse...just Push to go forward—Pull for reverse—NO CLUTCH PEDAL—NO GEARS TO SHIFT!
- ◆ MOBILIFT Full-Floating Drive Axle.
- ◆ Hydraulic Service Brakes.
- ◆ Combination Ball-Bearing Worm & Nut Type Steering.
- ◆ Easy to Get On and Off—no obstructions. Free access from left or right side.
- ◆ One-Piece Hood Raises for Easy Service Accessibility.

These—and many more—exclusive MOBILIFT features makes this new D-424 the lift truck for you!

Write today for complete details.



Model D-424
4,000 lbs. capacity
at 24" load center
83" hydraulic mast
lift height 108"



One-Piece Hood
hinged for easy
access to the engine
compartment.

NO OBSTRUCTIONS—
Easy to get on and off
from left or right side.

MOBILIFT CORPORATION

835 S. E. MAIN STREET, PORTLAND 14, OREGON

2317 W. 18TH, CHICAGO • 790 PATTERSON AVE., E. RUTHERFORD, N. J.
2724 TAYLOR STREET, DALLAS • 2730 SAN PABLO AVENUE, BERKELEY
1113 SPRING STREET, N. W., ATLANTA

READERS REPORT

Upsurge—in 1935

Dear Sir:

Congratulations on the factual reporting revealed in your article . . . Great Upsurge in Music Making [BW—Sep. 19 '53, p108]. Perhaps the upsurging market for musical instruments for employee recreational programs of great industrials might have been stressed more. . . .

Another asset to music in industry is the extent to which families of employees become interested in this cultural and uplifting activity in their homes.

Your alertness to upsurges was apparent in your issue of October 29, 1935, in which you said: "They (piano manufacturers) give the principal credit for what has happened to the editor of a trade journal, Roy E. Waite, of the Piano Trade Magazine." PTM's editorial pleas for new piano engineering and designing, published in March, April and May of that year, brought forth a new type of vertically strung piano, the first samples of which appeared in May. There was an immediate upsurge in piano sales, which you caught in time to interview and publish the above comment in October, 1935.

ROY E. WAITE

EDITOR
PIANO TRADE MAGAZINE
CHICAGO, ILL.

More on Automation

Dear Sir:

. . . In your article on the new Osborn Automatic Molding Machine [BW—Sep. 5 '53, p64] . . . there are several statements which are somewhat misleading. . . .

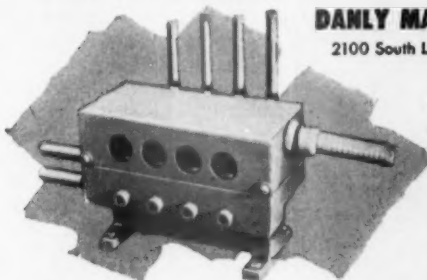
You state that preparation of sand and operation of cupolas are now the only foundry jobs that haven't been touched by automation. . . . At the American Radiator Plant in Louisville . . . there are four No. 3F Simpson Mixers equipped with automatic controls pounding out 60 tons of sand per hour each, all without the need of an operator. . . . It is possible now to equip sand preparing machines such as our Simpson Mixers with control equipment which will test the sand coming into the mixer, make the necessary calculations and add the proper amount of tempering water to bring the sand to the proper moisture. Furthermore, Simpson Mixers may be equipped with a cooling device which blows air through the sand as it is being mixed, evaporating the excess moisture and thus cooling the sand by loss of heat of vaporization. The control equip-

when you buy presses...
take a close look at
LUBRICATION

DANLY gives you a completely automatic oil lubrication system—built in "preventive maintenance"—that assures an ample supply of lubricant to all wear points at all times. It saves hundreds of hours of routine maintenance, press down time is greatly reduced—and your presses are positively protected against damage due to lubrication failure or neglect!

DANLY MACHINE SPECIALTIES, INC.

2100 South Laramie Avenue, Chicago 50, Illinois



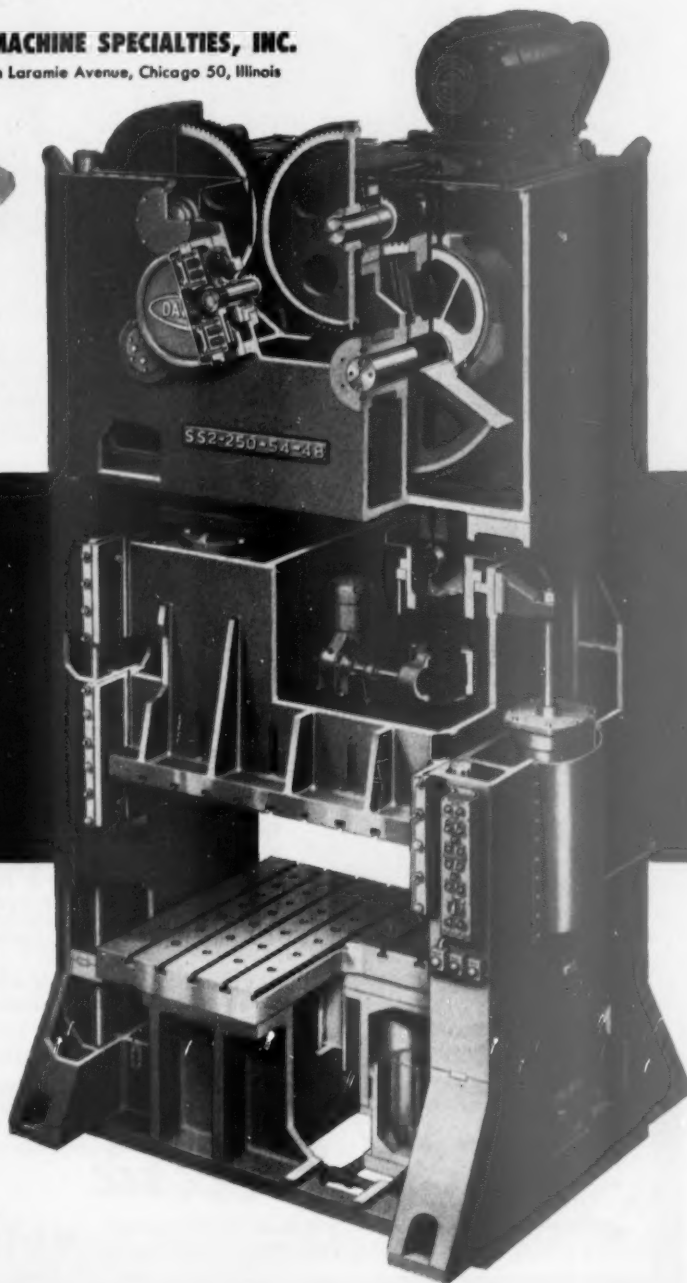
AUTOMATIC GUARDIAN OF PRESS LUBRICATION . . . This Danly-engineered switch monitors the flow of oil to the vital drive-shaft bearings. Should oil flow stop in any line, this switch also stops the press immediately before serious damage occurs and also indicates the faulty line.



MECHANICAL PRESSES . . . 50 TO 3000 TONS

HYDRAULIC METALWORKING EQUIPMENT

CONTINUOUS AUTOMATIC OIL LUBRICATION INCLUDES GIBS . . . Cutaway view of typical Danly Press shows how vital wearing surfaces are protected by the Danly complete automatic oil lubrication (in color) system. Oil gib lubrication permits extra close slide adjustment, longer die life.



It costs less to run a DANLY PRESS!



Single Action
Straight Side



Autofeed



Underdrive
Single, Double,
Triple Action



Gap Frame



Double Action
Straight Side

COMPACTNESS

LOW WEIGHT

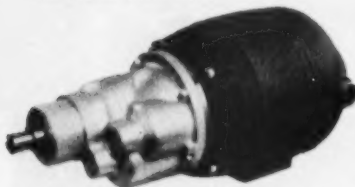
for your products
with . . .



Series motor suitable for many intermittent duty applications where space and weight are important considerations.



Universal motor with low weight, long lubrication life for home appliances and many other applications.



Light-weight universal motor with efficient spur gear speed reducer for slow speed portable equipment

Your new or redesigned products can be given these important advantages by using a Lamb Electric Motor because:

1. Every motor is specially engineered for the specific application.
2. 38 years of experience in motor engineering has taught us where and how much weight can be reduced without interfering with essential electrical characteristics.
3. This experience frequently enables us to make product design suggestions which reduce product weight, improve compactness, better performance.

To obtain these, and the other benefits of special application, be sure to consider the motor in the early stages of product development.

The Lamb Electric Company
Kent, Ohio

In Canada Lamb Electric—Division of
Sangamo Company Ltd.—Leaside, Ontario

THEY'RE POWERING AMERICA'S *Finest* PRODUCTS

Lamb Electric

SPECIAL APPLICATION
FRACTIONAL HORSEPOWER

MOTORS

ment mentioned above measures the temperature of the sand, calculates the amount of moisture that must be evaporated to cool the sand to a certain predetermined temperature, and automatically adds exactly this amount. As a matter of fact, sand preparation in the foundry is by far the most completely automated operation.

. . . For a great many years the foundry industry has sought a way to reclaim used molding sand. However, up until a year ago, probably only 20 foundries had installed successful sand reclamation equipment, and this equipment depended on a water wash process which requires a large and complicated installation of scrubbers, settling tanks, piping, classifiers, and filters. Now, however, National Engineering Company has introduced a pneumatic sand scrubber which, being a unique method of blasting sand against sand employing low pressure air, has made possible economical reclamation of all types of molding and core sands. The equipment is compact and self-contained and requires no water or compressed air connection. . . .

R. L. McILVAINE

EXECUTIVE VICE-PRESIDENT
NATIONAL ENGINEERING CO.
CHICAGO, ILL.

He Says It's Safer

Dear Sir:

Thank you for an extremely well-written analysis of stock car racing [BW—Sep. 19'53, p66].

One point which was overlooked concerns a fact which ties in directly with your article, What Causes Auto Injuries, in the September 12 issue, on page 87. Our findings as to causes of injuries show that a person is actually safer driving a race car on a track than he is on a highway.

In order to cut down the highway death and injury toll, it would be necessary to equip all of our automobiles as we do on the race track. This would include compulsory safety belts, special fastenings to keep the doors from opening in a crash, and the wearing of crash helmets. . . .

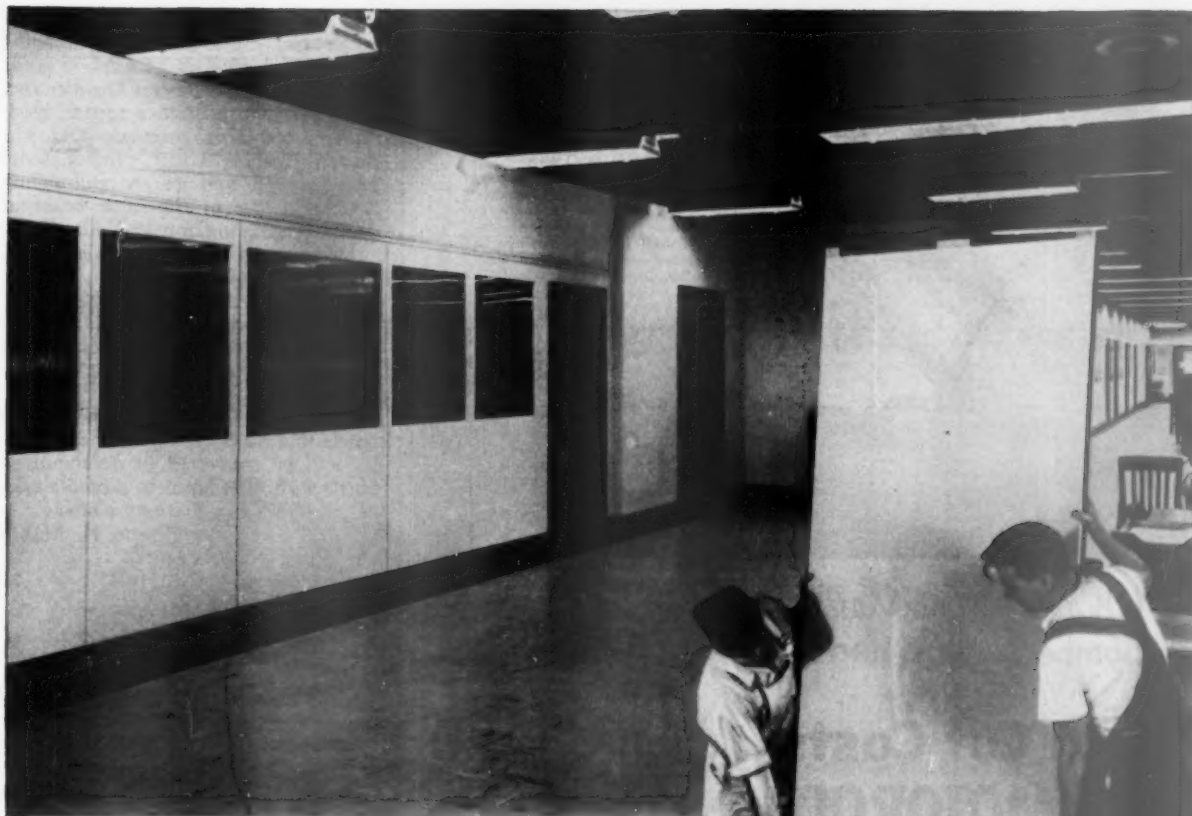
WILLIAM R. TUTHILL

EXECUTIVE SECRETARY
NATIONAL ASSN. FOR STOCK CAR
AUTO RACING, INC.
DAYTONA BEACH, FLA.

Rocking Bottle

Dear Sir:

I have been an interested reader of BUSINESS WEEK and its informative articles for some time. . . . I was especially interested in an article that appeared in the September 12 issue, page 34, entitled A Bottle That Could Start a Battle. . . . The story stated that



Space savers... space makers!

Johns-Manville Asbestos Movable Walls provide offices when and where you want them!

YOU can rearrange your present space or have new space partitioned off quickly and economically with Johns-Manville Asbestos Movable Walls. There is little or no interruption of normal routine.

These flush-type, asbestos panels have a clean, smooth surface that's hard to mar, easy to maintain . . .

and extra strong to withstand shock and abuse. Also, they are light in weight, easy to install and relocate. The "dry wall" method of erection assures little or no interruption to regular routine.

Johns-Manville Asbestos Movable Walls may be used as ceiling-high or free-standing partitions. The

complete wall, including doors, glazing and hardware, is installed by Johns-Manville's own construction men under the strict supervision of trained J-M engineers . . . responsibility is undivided.

An estimate will convince you that the cost of J-M Movable Walls compares favorably with other types of wall construction. For details write Johns-Manville, Dept. BW, Box 158, N. Y. 16, N. Y. In Canada write 199 Bay St., Toronto 1, Ont.



Johns-Manville

ASBESTOS

Movable Walls

INSTALLED NATIONALLY BY **JOHNS-MANVILLE**



ANOTHER SUCCESS STORY FROM MOTOROLA

U. S. Metals, New Jersey, says installation of Motorola 2-Way Radio in material handling equipment resulted in great savings in time and money—plus a sizable increase in production.

Whatever You Make ... bolts  ...
bombers  ... barrels  ... or bandages 

You'll Cut Costs ... Save Time with MOTOROLA 2-way Radio

JUST A FEW OF THE MANY COMPANIES DEPENDING ON MOTOROLA SYSTEMS:

2-Way Radio

Kennecott Copper Corp.
American Tel. & Tel. Co.
Baldwin Locomotive Works
Sinclair Oil Co.
Allis-Chalmers
Thompson Products, Inc.
Pennsylvania R. R.

Microwave

Pacific Power & Light Co.
Shell Pipeline Co.
Southern Counties Gas Co.
Pan American Pipeline Co.
Dayton Power & Light Co.

Industrial Control

Brazos River Electric
Transmission Co-op
Minnesota Power Co-op
Missouri Power & Light Co.

It's a matter of record! Industry after industry has achieved new highs in efficiency—new lows in cost—with Motorola 2-Way Radio. Motorola years-ahead engineering gives you radio communications of unmatched reliability and obsolescence-proof design—a system that delivers lightning-fast instructions at the lowest cost per message in communications history.

Motorola backs every installation with 24 years of communications leadership. A nation-wide engineering organization plus over 750 National Motorola Service groups assure swift service anywhere and any time. Motorola makes it a pleasure for you to operate your own 2-Way Radio system.

Motorola®

Communications & Electronics, Inc.
A SUBSIDIARY OF MOTOROLA, INC.
900 N. Kilbourn Ave., Chicago 51, Illinois
Rogers Majestic Electronics Ltd., Toronto, Canada

Mail Coupon Today
for the Complete
Motorola 2-way Radio
Story

Motorola Communications & Electronics, Inc., Dept. 2286-BW
900 N. Kilbourn Ave., Chicago 51, Illinois

- ☐ Please send detailed information describing Motorola's 2-Way Radio System. ☐ Have your local engineer call me for an appointment.

Name _____

Firm _____

Address _____

City _____

Zone _____

State _____

this was the first time a decanter-type bottle had been used for packaging lower priced whiskies. I want to point out that . . . Mr. Boston Distiller Inc. proudly came out with a square, glass-ribbed decanter to promote Old Mr. Boston Rocking Chair whiskey some 15 years ago, and we are still selling Rocking Chair in the same beautiful decanter, gurgling top and all. . . .

Decanters for blended whiskey are, therefore, an old story.

What is new is our rocking bottle. Developed for us at West Virginia Glass Works, this bottle rocks like a rocking chair, and it will not tip over easily. . . .

Now that Old Mr. Boston has a bottle that rocks, it may be that Schenley will be interested in developing a bottle with glass horns to promote sales of its Old Stag straight whiskey.

CEDRIC H. MARKS

MR. BOSTON DISTILLER INC.
BOSTON, MASS.

Wasted Capacities

Dear Sir:

As a professional engineer, I would like to comment on the article [BW—May 23 '53, p. 29] on Engineer Shortage: Treatment but No Cure.

I would like to suggest that a cure might be forthcoming if engineers applied to their operations their demonstrated talents for increasing output with reduced input. My observation is that too many competent, experienced engineers do not have the opportunity to produce their capacity; too many are confined to the routine or semi-technical phases of their operations. I see too many of these men inefficiently utilized—relegated to drafting type of work or to sales activities. These functions could be handled, perhaps better, by men with less technical training and know-how. This situation may be a hangover from the depression days when the practice became rather widespread.

The natural result of these conditions is that many competent engineers forsake their field to seek financially greener pastures.

I believe the cure does not consist of recruiting into engineering schools as many students as possible, but rather of keeping recruitment of students on a selective basis so that those graduated have an aptitude in this field. Then utilize these trained men to the fullest extent of their capabilities.

NAME WITHHELD

Letters should be addressed
to Readers Report Editor,
BUSINESS WEEK, 330 West 42nd
Street, New York 36, N. Y.

ABRASIVES SHOW UP ON BALANCE SHEETS!

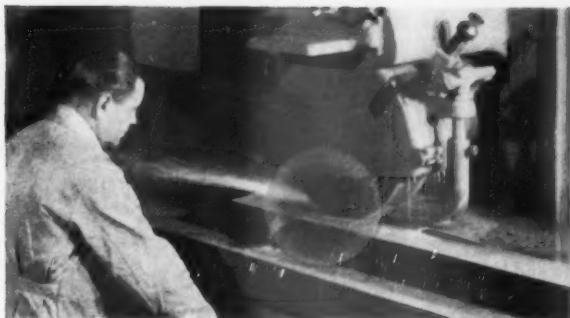
Equip your men with the “TOUCH of GOLD”



Use men and materials to the best advantage. Men get “Touch of Gold” results with the best abrasives. This more efficient grinding adds value to materials quicker—increases customer satisfaction—brightens your profit picture. Look to Norton and Behr-Manning for the best abrasives and the most modern grinding techniques. They’re the world’s abrasive leaders.

Norton Company, Worcester 6, Mass.

*Behr-Manning Corporation, Division of Norton, Troy, N. Y.
Plants, distributors and dealers the world over.*



“Touch of Gold” in surface grinding. The new Norton G Bond is the biggest improvement in grinding wheels in 43 years. It means fast, cool and economical cutting.



“Touch of Gold” to a kitchen sink. Weld grinding with a Behr-Manning METALITE® Cloth Belt on a Curtis Adapt-A-Belt attachment substantially increased production.

Making better products . . . to make other products better



NORTON



BEHR-MANNING

Announcing
a new combination by two
leaders in materials handling,
to serve you better



Mechanical Handling Systems has purchased Louden Machinery Company, Fairfield, Iowa, manufacturer of monorail and overhead crane equipment.

With this acquisition, a new team with greater capabilities for service to all industry has taken the field.

Louden is a firm with an 86-year history of quality manufacturing. Loudon overhead cranes, monorail, and special equipment are speeding materials handling and cutting costs in thousands of plants.

Mechanical Handling Systems has been designing, engineering and building conveyor systems of all types, in many industries, for 34 years. The MHS field includes simplest installations and multi-million-dollar automated plants.

Together, Mechanical Handling and Loudon complement each other in products, experience, engineering, manufacturing facilities and skills, and field manpower.

To American Industry the new combination brings a broader, more advantageous, more valuable service in the materials handling field.

Present sales offices and organizations of the
two companies remain separate and independent.

Mechanical Handling Systems Inc.

4610 Nancy Ave., Detroit 12, Michigan

Offices in Principal Cities

In Canada: Canadian Mechanical Handling Systems Ltd., Toronto



The Oil That Says:

**"CAN
DO!"**

**High V. I. PUROLENE proves
perfect in hundreds of uses**

The *qualities* built into Purolene are what give it such a broad, multi-purpose usefulness.

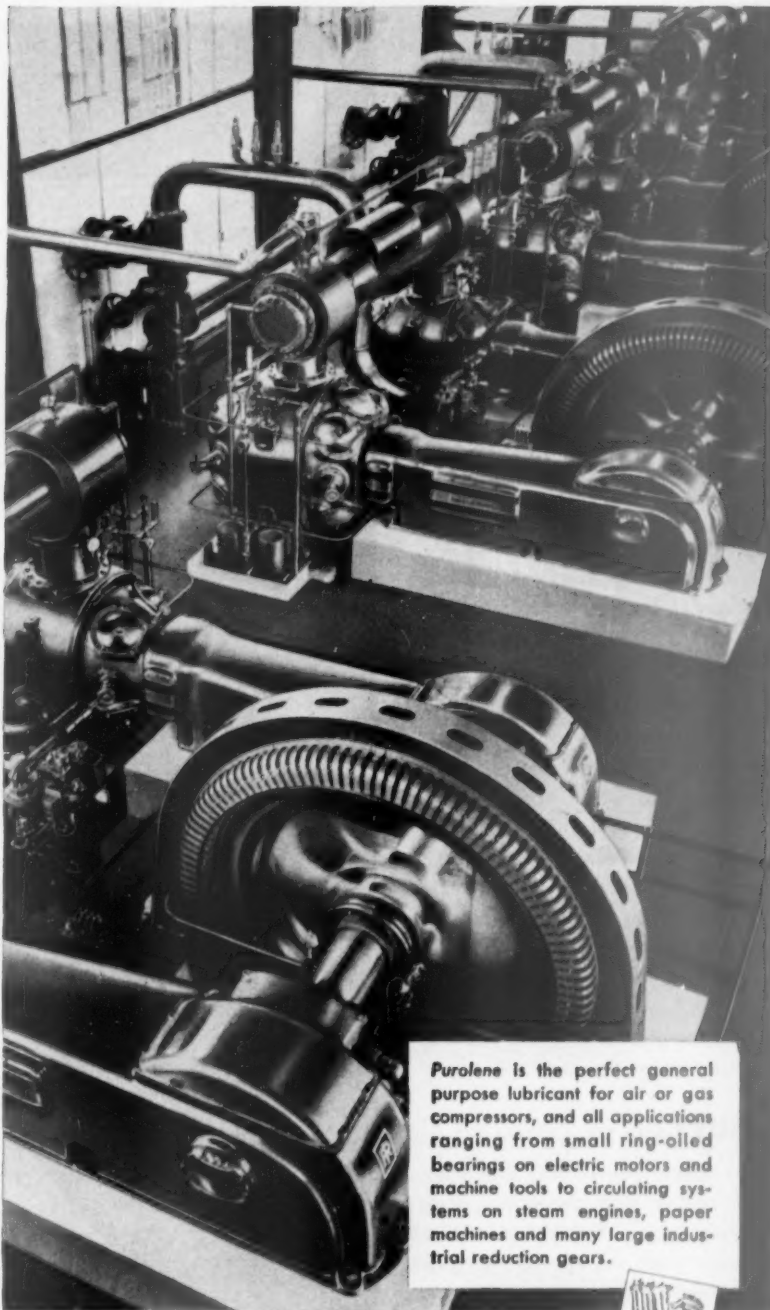
Expertly refined from a superior paraffin crude, Purolene has 100 plus V.I., high flash and fire, low pour, high resistance to oxidation and offers protection against rust.

Purolene is one of a group of Pure Oil *multi-purpose* industrial lubricants, each designed to do many different jobs equally well. You can use them to simplify your lubrication practice and reduce your lubricants inventory.

So effective is the multi-purpose character of the lubricants in this group that *seldom more than six are needed to do the entire lubrication job for even a large plant!*

Learn how to use this versatile line to start a new labor-saving, money-saving lubrication program in your plant. Use the coupon below.

KEEP IT PURE AND SIMPLE!



Purolene is the perfect general purpose lubricant for air or gas compressors, and all applications ranging from small ring-oiled bearings on electric motors and machine tools to circulating systems on steam engines, paper machines and many large industrial reduction gears.



PURE OIL INDUSTRIAL LUBRICANTS

FREE BOOKLET

The Pure Oil Company, Industrial Sales Dept. B-310
35 E. Wacker Drive, Chicago 1, Illinois
Please send me your free booklet on how to "Simplify and Save."

NAME _____
POSITION _____
COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

Be sure with Pure Sales offices located in more than 500 cities, including: Atlanta . . . Birmingham . . . Charleston . . . Charlotte . . . Chattanooga
Chicago . . . Columbus . . . Indianapolis . . . Jacksonville . . . Madison . . . Memphis . . . Miami . . . Milwaukee . . . Minneapolis . . . Norfolk . . . Pensacola . . . Pittsburgh . . . Richmond

Dynamite: Time-Saver

PROBLEM...

...to help keep America's millions of motor vehicles on the move.

SOLUTION...

... express routes that by-pass congested areas—toll roads, for example. Two thousand miles are expected to be in operation by 1956. Many miles of these short-cuts, through hills and mountains, would be impossible but for the mighty rock and earth moving power of dynamite. With Hercules® explosives and technical service facilities, road contractors are assured of maximum blasting efficiency and economy.

RESULT...

... faster, direct-route highways for trucks and passenger cars. Other engineering projects that benefit from the use of Hercules explosives include coal and metal mines, quarries, dams, petroleum production, and pipe lines.



Hercules' business is solving problems by chemistry for industry...



... detergents, rubber, plastics, paint, varnish, lacquer, textiles paper, insecticides, adhesives, soaps, to name a few, use Hercules® synthetic resins, cellulose products, chemical cotton, terpene chemicals, rosin and rosin derivatives, chlorinated products and other chemical processing materials. Hercules® explosives serve mining, quarrying, construction, seismograph projects everywhere.

HERCULES

HERCULES POWDER COMPANY 968 Market Street, Wilmington, Del.
Sales Offices in Principal Cities

BUSINESS OUTLOOK

BUSINESS WEEK
OCT. 10, 1953



You'll have a hard time finding anything to worry about in the employment figures.

For 18 straight months, the Census Bureau has found more than 60-million Americans at work on paying jobs. For over a year and a half, unemployment has stayed comfortably under 2-million.

September employment, at 62,306,000, was the highest ever recorded for that month.

Employment dropped about a million from August to September. This, however, isn't out of line with seasonal expectations—with youngsters going back to school and harvest needs dwindling.

If there is any surprise in the employment figure, it may be this: The total is only 46,000 higher than last year.

In fact, aside from seasonal fluctuations up and down, employment has tended to center around 62-million for many months. That's very high, but it fails to reflect any real growth in the labor force.

We should add several hundred thousand workers a year. If they don't get jobs, obviously there has to be a bulge in unemployment.

But unemployment has gone down, not up. Growth in the labor force somehow has been canceled out. Perhaps new workers simply have bumped older ones drawn in during the Korea buildup. (The armed forces are no factor; they take in about as many as they muster out.)

Unemployment is virtually nonexistent. That's convincing evidence of the unabated demand for labor.

In September, the jobless numbered less than 2% of the labor force. That was about unchanged from August's peacetime low of 1¼-million.

And the September figure was 200,000 under year-ago levels.

Anyone who insists on finding somber hues in the job picture will have to dig pretty deep—and risk statistical pitfalls.

He might note that unemployment went up 6,000 from August to September—the only August-September rise in the postwar period.

But that's so small it could be an understandable sampling error.

For those who try to fill in between the monthly reports on employment, there are the weekly listings of claims for jobless pay.

Late in September, more new applicants were showing up to file at the state offices. Since mid-August, such claims have been running about 50,000 higher each week than at the same time last year. (But last year was abnormally low; we were picking up speed after the steel strike.)

If you use these figures, weigh them cautiously. They're tricky, and you may puff up an apparent weakness out of all proportion.

It is easy to get the notion that unemployment is on the rise. Almost daily you see new reports from somewhere about layoffs.

This week started, for example, with employment cuts at such

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
OCT. 10, 1953

scattered points as Dow Chemical's magnesium-chlorine works in Freeport, Tex., and American Car & Foundry's subsidiary, Carter Carburetor, in St. Louis.

There also were new cuts in zinc mining and smelting.

Yet you hear little, so far, about "islands of unemployment."

—●—

Some layoffs, at least, hurt less than you might suppose.

Studebaker, largest employer in South Bend, cut off approximately one-third of its work force. Yet qualified local observers tell us that the city has felt this reduction in payrolls hardly at all.

Most of the people laid off were relatively new workers. Many commuted 40 or 50 mi. to work. When let out, they just stayed home.

And more than 1,000 found new jobs, local authorities assert.

—●—

You might expect Detroit to be having unemployment troubles if you read only the scare headlines. But output still is at an annual rate of about $5\frac{1}{2}$ -million cars; Detroit employment, though down a little from June, is 10% higher than it was this time last year.

—●—

Manufacturers' new and unfilled orders don't look so good as employment (particularly when weighed against the high level of inventory).

Take manufacturers of durable goods—whose position is the crux of the situation.

They were still adding to inventory as late as August. But their new orders for six months had been sharply below the value of their shipments. And cancellations had been slashing order backlogs for a year.

Durable goods manufacturers' new orders, from March through June, averaged \$750-million a month less than the value of shipments. In July, they were under by \$2-billion, and in August by nearly \$3-billion.

By itself, this might not be too alarming. The backlog still totals nearly \$65-billion against monthly shipments of about \$13-billion. Thus the backlog still amounts to better than $4\frac{1}{2}$ months' output.

Here's the aspect of the situation that's really frightening:

In the last year, manufacturers of durables have added nearly \$3-billion to inventories while order backlogs were dropping \$7 $\frac{1}{2}$ -billion.

—●—

Increases in personal income seem at least to have slowed down.

The seasonally adjusted figure for July, after downward revision of \$600-million, now stands at an annual rate of \$287.5-billion: August is placed at \$287-million.

The August figure, however, is \$16-billion ahead of a year ago.

—●—

Spotty demand on banks for business loans may reflect some reversal of inventory policy. This year, loans have gone up only \$400-million since July. Last year, the rise was \$1-billion, two years ago \$900-million.

Contents copyrighted under the general copyright on the Oct. 10, 1953, issue—Business Week, 330 W. 42nd St., New York, N. Y.

Here's How

PLIOLITE S-6B

gives you the Tops in shoe bottoms

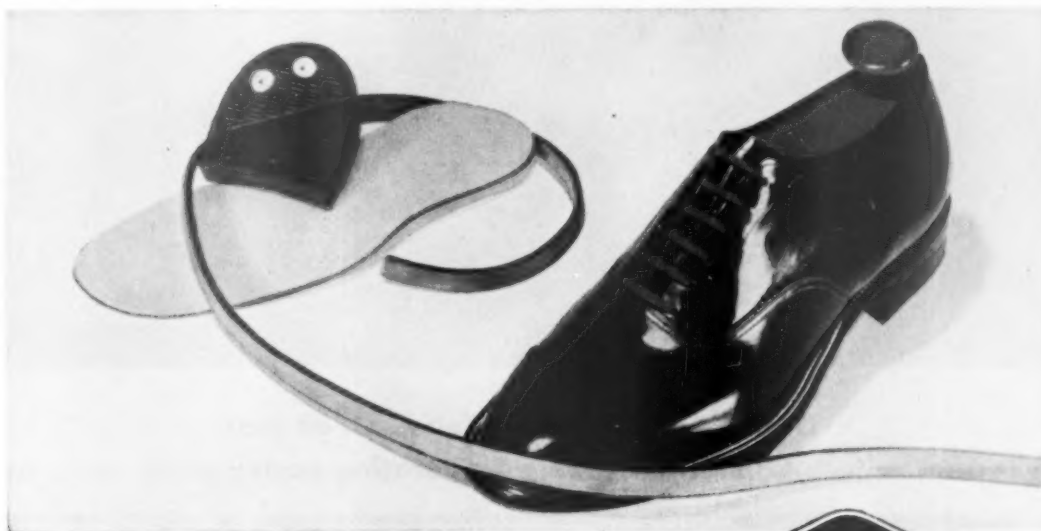
PLIOLITE S-6B is a styrene-butadiene copolymer resin—a chemical cousin to synthetic rubber.

This tailor-made resin blends perfectly with rubber to look, feel and act like leather—but at less cost and with many advantages over leather. Major use of these blends is in the manufacture of shoe soles and related products.

Shoe manufacturers use rubber-resin blends because they are easily fabricated, they add

uniform quality to the shoe and they are economical. Shoe wearers like them because they look well, feel well, wear well and fit the purse well.

Millions of pounds of PLIOLITE S-6B are used to make better shoe soles and hundreds of other molded or extruded products at lower cost. Many pounds more stand ready to help you improve your product. For full details write: Goodyear, Chemical Division Dept. J-9415, Akron 16, Ohio.



LONG WEAR. light weight, moisture resistance, comfort, good looks and low cost have been added to all types of shoes by rubber reinforced with PLIOLITE S-6B in the forms of soles, heels, heel plugs, welting and inner soles.



Chemigum, Plionbond, Pliolite, Plio-Tuf, Pliovic—T.M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

Use-Proved Products — CHEMIGUM • PLIONBOND • PLIOLITE • PLIO-TUF • PLIOVIC • WING-CHEMICALS — The Finest Chemicals for Industry

We think you'll like "THE GREATEST STORY EVER TOLD"—every Sunday—ABC Radio Network—THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network

Why truck users in field after field agree

It's better business to buy Chevrolet Trucks



**On big jobs . . . small jobs . . . all jobs
Chevrolet trucks cut operating costs**



Whether your business requires a heavy-duty dump truck or a panel delivery, whether your runs are just across town or clear across the country, you'll see costs go down with Chevrolet trucks on the job!

Truck users in every field have the proof. They've kept on-the-job records of operating and upkeep costs—and the records show that Chevrolet trucks cost less to own and operate per ton-mile.

What's the reason? First of all, there's thrifty Chevrolet power that saves you money every mile. In heavy-duty models, the advanced Loadmaster engine with new higher compression (7.1 to 1 ratio) brings you more horsepower and an important increase in gasoline economy. In light- and medium-duty models, Chevrolet's great Thriftmaster engine is famous for stretching a gallon of gas.

Then, there's stronger, more rigid construction. These new Chevrolet trucks are built to work harder and last longer. They're engineered to roll up more miles with less maintenance.

Along with these savings, you enjoy advantages offered by no other make of truck—features like "Torque-Action" and "Twin-Action" brakes, for example, which provide smoother operation for faster, surer stops.

Is it any wonder truck users in field after field agree that it's better business to buy Chevrolet trucks—and back it up year after year by buying more Chevrolet trucks than any other make!

Why not find out firsthand how you can save with Chevrolet trucks—*America's lowest priced truck line!* Your Chevrolet dealer will be happy to give you all the facts. Drop in and see him soon. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.



No other truck at any price offers all these advance-design features

VALVE-IN-HEAD ENGINE: The right power for your job—plus economy in the Loadmaster or Thriftmaster engine.

HIGH-EFFICIENCY COMBUSTION: Specially designed combustion chamber squeezes all available power from fuel.

POWER-JET CARBURETION: Meters the flow of fuel to meet exact requirements of engine load and speed with 2-way controlled ignition.

SPECIALIZED 4-WAY LUBRICATION: Provides 4 special types of lubrication to lengthen engine life.

SYNCHRO-MESH TRANSMISSION: Quick, quiet, safe shifting—eliminates "double-clutching."

HYPOID REAR AXLE: Lowers tooth pressures, stronger tooth section gives extra durability.

STRADDLE-MOUNTED PINION: Maintains better gear alignment, better tooth contact on medium- and heavy-duty models.

SPLINED AXLE-TO-HUB CONNECTION: Driving splines mate directly with wheel hubs on heavy-duty models. No bolts to loosen or permit oil leaks.

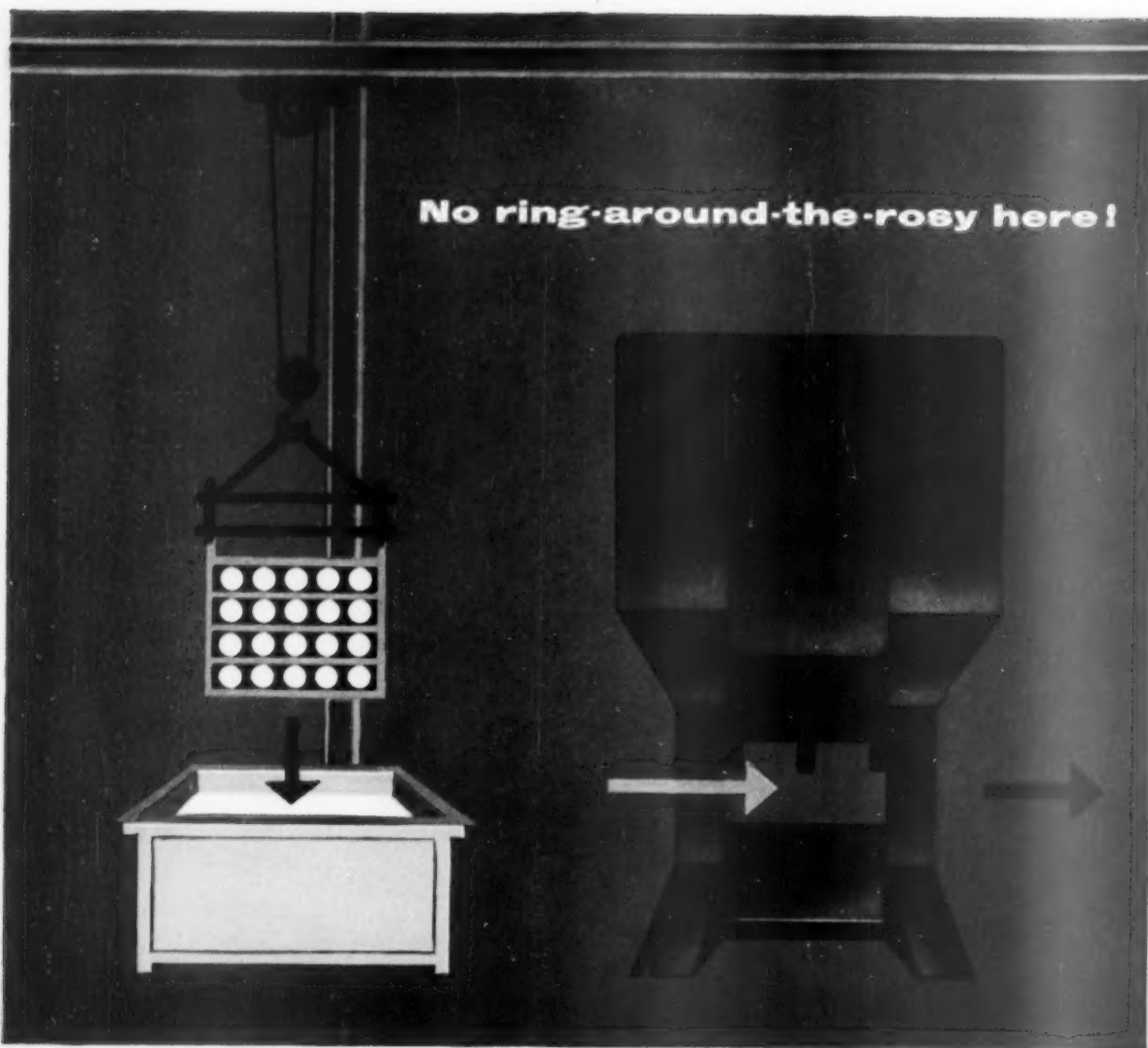
BATTLESHIP CAB CONSTRUCTION: Each cab is a husky double-walled, all-welded steel unit of great strength and durability.

UNIT-DESIGNED BODIES: Floors, tops, sides built as separate matching units for greater strength and safety. Widest color choice at no extra cost.



12 Straight Years as First Choice of America's Truck Buyers

More buyers have chosen Chevrolet trucks than any other make—for 12 consecutive truck production years, including 1955 to date. That is in itself an amazing record and one which supplies the most convincing proof possible of Chevrolet's superior qualities and value.



With the new Pennsalt Fos Process, cold steel can be extruded into finished shapes . . . directly . . . with important economies in manufacturing. Cold steel discs or billets are formed into shafts, cylinders, tubes, gear blanks and many other parts in the press. This eliminates up to 80% of all machining . . . creates a direct line manufacturing system that lowers costs and improves production.

The Pennsalt Fos Process is now being used in automotive, tube, wire drawing and ordnance plants. The process includes a new Pennsalt lubricant and a proven method of locking that lubricant to the steel. The Fos Process insures

the smooth and rapid flow of cold steel through the die, even at extreme pressures.

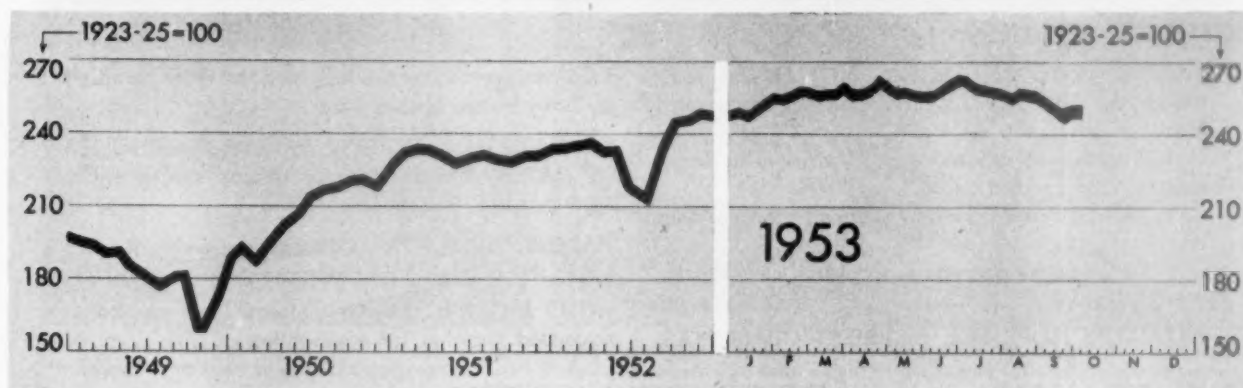
Practically all the original metal can be utilized with Pennsalt cold extrusion techniques . . . work cycles can be reduced . . . and over-all production speeded up. Superior physicals can be obtained from carbon steels, along with a better, smoother finish. Multiple draws without interim recoating and annealing, and greater reductions per draw are practical.

Is Fos Process practical for your plant . . . your products? Send us details of desired application, or blueprints of products. We will be glad to evaluate possibilities. Customer Service Department, 388 Widener Building, Philadelphia 7, Pennsylvania.



THE PENNSYLVANIA SALT MANUFACTURING COMPANY

FIGURES OF THE WEEK



Business Week Index (above) *252.7 †252.7 255.4 247.3 173.1

PRODUCTION

Steel ingot production (thousands of tons).....	2,132	†2,149	2,011	2,215	1,281
Production of automobiles and trucks.....	140,138	†140,953	132,574	143,234	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$46,725	\$53,288	†\$46,430	\$48,062	\$17,083
Electric power output (millions of kilowatt-hours).....	8,414	8,354	8,694	7,665	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	6,443	6,486	6,534	6,515	4,751
Bituminous coal production (daily average, thousands of tons).....	1,603	1,611	1,624	1,672	1,745

TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars).....	78	79	78	82	82
Carloadings: all other (daily av., thousands of cars).....	58	59	59	62	53
Department store sales (change from same week of preceding year).....	+3%	+6%	-9%	-2%	+30%
Business failures (Dun and Bradstreet, number).....	189	152	178	129	22

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	396.8	409.3	415.5	425.1	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100).....	80.8	82.1	85.1	97.1	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100).....	94.5	95.8	96.3	90.7	††75.4
Finished steel, index (U. S. BLS, 1947-49 = 100).....	141.7	141.7	141.7	130.8	††76.4
Scrap steel composite (Iron Age, ton).....	\$31.33	\$31.50	\$38.67	**\$42.00	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.).....	29.905¢	29.780¢	29.969¢	24.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.27	\$2.18	\$2.20	\$2.41	\$1.97
Cotton, daily price (middling, ten designated markets, lb.).....	32.58¢	32.74¢	32.89¢	38.18¢	30.56¢
Wool tops (Boston, lb.).....	\$2.12	\$2.12	N.A.	\$2.00	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's).....	186.7	185.6	187.3	194.5	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.86%	3.88%	3.88%	3.54%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	2½-2½%	2½%	2½%	2½-2½%	1-1%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	52,796	52,801	53,059	53,024	††45,820
Total loans and investments, reporting member banks.....	78,906	78,916	79,385	76,723	††72,036
Commercial and agricultural loans, reporting member banks.....	23,110	23,035	22,965	21,854	††9,299
U. S. gov't guaranteed obligations held, reporting member banks.....	31,663	31,393	31,797	32,018	††49,879
Total federal reserve credit outstanding.....	26,252	26,228	26,071	24,963	23,883

MONTHLY FIGURES OF THE WEEK

	Latest Month	Preceding Month	Year Ago	1946 Average
Employment (in millions).....	62.3	63.4	62.3	55.2
Unemployment (in millions).....	1.2	1.2	1.4	2.3
Private expenditures for new construction (in millions).....	\$2,185	\$2,205	\$2,029	\$803
Public expenditures for new construction (in millions).....	\$1,125	\$1,118	\$1,131	\$197
Personal income (seasonally adjusted, in billions).....	\$287.0	\$287.5	\$271.3	\$177.7
Farm income (seasonally adjusted, in billions).....	\$16.7	\$16.9	\$19.4	\$18.9
Manufacturers' inventories (seasonally adjusted, in billions).....	\$46.2	\$45.8	\$43.1	\$21.3
Consumer credit outstanding (in millions).....	\$27,434	\$27,217	\$23,030	\$6,704
Installment credit outstanding (in millions).....	\$21,058	\$20,854	\$16,728	\$3,174

* Preliminary, week ended Oct. 3, 1953.
** Basing pt., less broker's fee.

† Revised.
†† Estimate.

N. A., Not available.
‡ Date for "Latest Week" on each series on request.

in BUSINESS this WEEK...

GENERAL BUSINESS:

FACING UP TO AN ATOMIC WORLD. The Joint Chiefs of Staff have to reshape our continental strategy, because . . .

- Though conventional warfare worked in Korea and may be needed again . . .

- Russia's atomic armament calls for a new type of military force; so . . .

- U.S. defense spending may turn sharply upward again.p. 27

RETAILERS HOPE FOR MERRIEST CHRISTMAS.

Last year's record could fall, with toy sales, needled by baby boom, setting pace.p. 31

"48 CARS IN 48 HOURS:" BALLYHOO WHOOPS UP SALES. Lincoln-Mercury dealer stages super sale to move 1953 models.p. 32

PATENT GIVEAWAY. Court orders General Electric to throw open light bulb patents to public. p. 34

AUTO MERGER? Detroit guesses they are being squeezed together by competition.p. 34

BUSINESS ABROAD:

NOW—NEW POLICY FOR THE U. S. Stassen for making controls on East-West trade more flexible—and cracking down on smugglers.p. 150

SCHUMAN PLAN STEEL DROPS. Production sags on Continent as Britain's risesp. 156

FINANCE:

CAN PROFITS GROW AS FAST AS SALES? Electric utility sales continue to soar, but their stock prices aren't matching the pace.p. 58

CITIES SCRAMBLE for more taxes as rising costs force their budgets higherp. 64

BANK TRAINS ITS TELLERS AND CLERKS BY DUMMY SCRIMMAGE. National City uses a fully equipped model bank.p. 68

GOVERNMENT:

COMMISSIONS DO A LOT OF THINGS. They're as old as the Republic, and now Eisenhower has them at work on many problems. . . .p. 90

BUILDING UP INDUSTRIAL MUSCLE. Most projects under government's fast write-off program will be operating within another year.p. 103

INDUSTRIES:

BRINGING PAUL BUNYAN UP TO DATE. Farmers and commercial lumber men are agog over mechanized forestry show.p. 146

INSTITUTIONS:

ASCAP: COLLECTING FOR THE PIPER'S TUNE. The music world's performing-rights society is having its biggest yearp. 136

LABOR:

IS THE WHITE HOUSE SHIFTING

	Page
Business Outlook	17
Washington Outlook	39
International Outlook	161
Personal Business	183
The Trend	200
Figures of the Week	23
Local Business	176
Readers Report	8

ITS LABOR POLICY? Use of T-H injunction in dock strike raises possibility, but intervention is anti-crime, not anti-laborp. 164

A NEW STORM CENTER IN CIO. Victor Reuther becomes his brother Walter's aide, and dissension may result.p. 166

HOW SOLID IS YOUR CONTRACT? NRLB holds key hearing on subject this weekp. 168

NEW PAY CLIMB. Unions will go after higher wages even if business dropsp. 169

TRAINMEN: WHEN THEY FIGHT, THE U. S. IS INVOLVED. A look at the railroad brotherhoods. . . .p. 170

MANAGEMENT:

L. A. WAY: NO PLUNGE BUT AN EASYGOING PUSH. What's the typical management man like in Southern California?p. 118

THE MANAGEMENT PATTERN: Business and Sociology.p. 126

ELECTRONIC BABEL is cured by U. S. Steel system. The many languages of office machines are translated on one tape.p. 128

MARKETING:

WILL THE NEW BUYING PATTERN LAST? Consumer durable goods buying stays high, flouting conventional

laws of economics.p. 43

CITY-COUNTRY GAP is still something to watch in marketing: Easy Washing Machine still pushes its nonautomaticp. 46

CBS MOVES IN AS TV MAKER. Network's manufacturing arm brings out a new color tube.p. 48

THE RETAIL PROFIT SCORE. . . .p. 52

THE MARKETS:

BULLS CAN'T SAY MUCH. Recent stock rally was technical and short-lived, just as the bears predicted it would bep. 174

PRODUCTION:

ELECTRONICS PLANT: LONGEST STEP YET FOR AUTOMATION. Small, Navy-sponsored factory may be a prototype for huge plants. .p. 72

MACHINE TOOL SUPERMART. Permanent exhibit in Brooklyn allows buyers to examine and test a variety of toolsp. 79

NEW PRODUCTSp. 85

RESEARCH:

N. C. STATE RESEARCH TAKES A LOOK AT THE ATOM. College's reactor is only part of a program geared to the state's economy.p. 108

TRANSPORTATION:

A STORM-TOSSED COMPANY SAILS CLEAR. American President Lines—formerly the strapped Dollar Line—is expanding once more.p. 186

SHIP BATTLE. U. S. seeks to repossess some 75 vessels it sold after the war.p. 196

WHAT IT'S ABOUT:

DAMS, CABLES, CONGRESS are all a part of the mixture in the fight over hydropower.p. 130

FINISHING



SALES. The colorful, sparkling DULUX finish on this tractor helps promote a sale in a dealer's showroom.



PROTECTION. Rugged DULUX Tractor Enamel has the toughness to take hard knocks on the job . . . keeps its good looks despite years of outdoor exposure.



PRE-TEST. This guillotine-like device is one of many that help Du Pont develop finishes with high impact-resistance.



OUTPUT. The spray-booth performance of DULUX helps a tractor manufacturer keep finishing time at a minimum while producing a finish of maximum durability.

DULUX does all-round job for tractors

REG. U.S. PAT. OFF.

DULUX Tractor Enamel is one of the many Du Pont finishes that have helped manufacturers turn out better products—faster—more economically. In the last twenty-five years, Du Pont chemists have developed more than 12,000

special-purpose finishes like this to serve a wide variety of industries.

Looking for a way to cut *your* manufacturing or maintenance costs? Looking for a finish that will make your product look better, sell better, last

longer? You can get expert help on *any* finishing problem by contacting the Du Pont Finishes sales technician in your area . . . or by writing E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington, Delaware.

Du Pont Industrial Finishes

Chemically engineered to do the job better.

DUCO AND DULUX ARE REG. U. S. PAT. OFF.



REG. U. S. PAT. OFF.

**Better Things for Better Living
...through Chemistry**



The proud papa is B. F. Michtom, Chairman of Ideal Toy Corporation, but . . .

Do you recognize his famous family?

They're all celebrities except the happy "father"! He's B. F. Michtom, who built a \$25,000,000 business promoting "character" dolls inspired by famous personalities. He's holding Saucy Walker and Harriet Hubbard Ayer. The others are Mary Hartline, the Toni Doll, Shirley Temple, and Smokey Bear, protégé of the U. S. Forest Service.

"Real-life stars create plenty of excitement when they appear at famous stores," says B. F. Michtom. "But to cash in, we have to get the dolls on the counter *on time*. We call Air Express. Frantic telegrams come in: 'Sold out. 1,000 kids in store. Send

more dolls!' We keep both kids and stores happy — we call Air Express again!

"Stores need mat ads. They run out of autographed photos, Jr. Forest Ranger application cards and similar promotion materials. Air Express fills the gap fast.

"Nobody needs Air Express more than we. It's indispensable. Yet we pay no premium for this superior service. In fact, Air Express rates are *lowest of all* on most of our shipments."

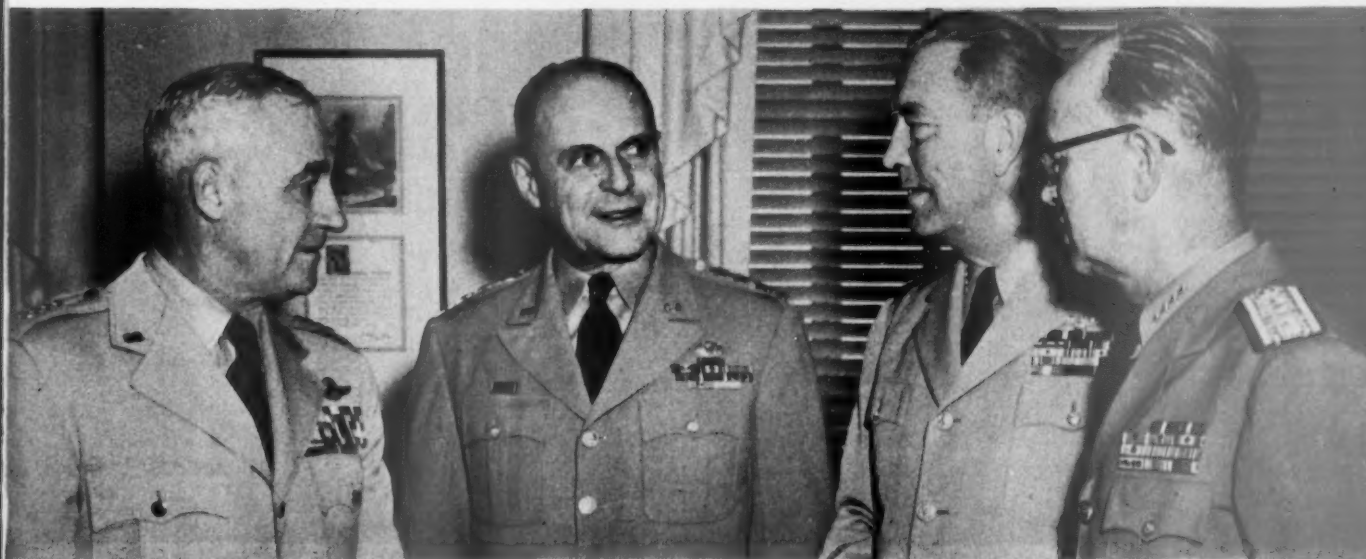
It pays to express yourself clearly. Say Air Express! Division of Railway Express Agency.



Air Express



GETS THERE FIRST via U.S. Scheduled Airlines



THE JOINT CHIEFS: Left to right: Air Force's Twining, Army's Ridgway, chairman Radford, Navy's Carney.

Facing Up to an Atomic World

This week, the Joint Chiefs of Staff gave Defense Secretary Wilson a report reviewing the entire military program of the United States. Their ideas are highly secret and still have to be approved by the National Security Council before any changes can be made. But, for the first time since inauguration, a new Eisenhower military policy is shaping up.

• **Turning Point**—It's evident we've reached a turning point in U.S. history.

Up to a few weeks ago, the weight of the atomic equation was still in our favor. It had been some time since we'd had a monopoly on the A-bomb, to be sure, but our production of A-bombs plus the possession of the H-bomb still gave the U.S. retaliatory power far beyond the Reds' ability to knock us out.

With that reassuring thought, we approached the leveling-off of military expenditures to our \$35-billion-a-year cold war plateau.

• **Alarm**—Today, pronouncements from the Pentagon and Capitol Hill state clearly that any margin the U.S. has now is more illusory than real.

The Soviet, if it does not already have, will soon have the potential to deliver both H-bombs and A-bombs to multiple U.S. targets (page 200). So the U.S. is confronted with the reality that—should Russia strike first—we would perhaps suffer as much damage as we could deliver in retaliation.

• **But No Billion**—The new situation has not yet put an additional dollar into the program, though the Joint Chiefs are working with factors that could boost appropriations by billions. The chiefs have a breathing period now—with Korea fronts quiet—but you can expect the tipoff on Eisenhower's "new defense for new times" in the form of a supplemental request to Congress in the early spring.

I. The Nature of Defense

JCS chairman Radford and his military chiefs of staff have had to face up to these tough, interlocking problems:

• They know we still need the footsoldier, the tank, and other conventional weapons in case another Korea is forced on us. But what about

the H-bomb and intercontinental missiles?

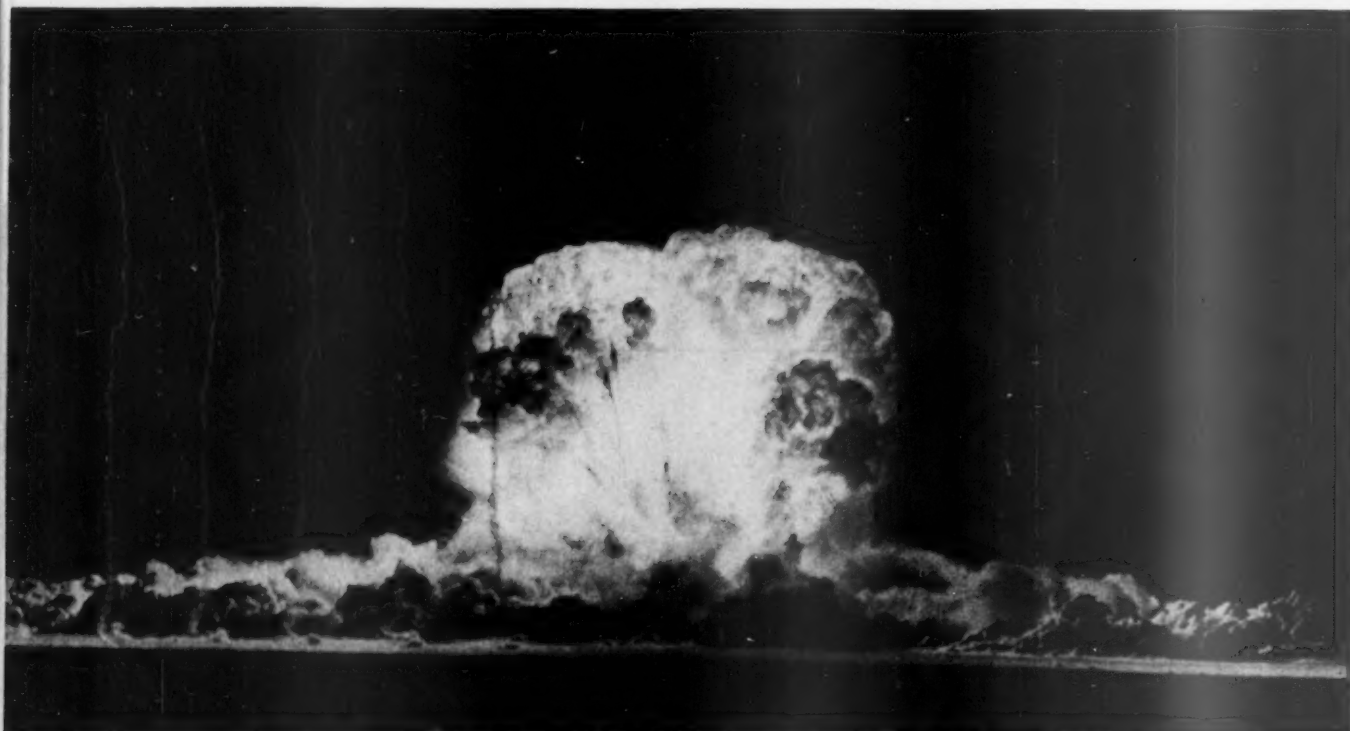
• They know a radar fence across North America, backed up by forces in depth, will cost billions and may be akin to the Maginot Line concept. But again, what about the growing Soviet stockpile of atomic weapons and the growing Soviet strategic air force?

• They know that to tear U.S. industry up by the roots and move it to dispersed areas is a nearly impossible task that would cost more billions. But how can you rely on an industrial base that the experts say the enemy can wipe out in one attack right now?

• **Three Spheres**—There are three main subjects the Pentagon has to take into account in planning defense strategy:

Korea. Although the shooting is over, military men can no longer count on either reducing forces there or cutting back on the costs of maintaining an army in the field during the armed truce. Until some real settlement is reached, we cannot afford to reduce our strength in Korea. Hence, the \$2-billion cut expected to result from a truce is now shrinking to about \$1-billion.

Continental defense. The National



Conventional warfare worked in Korea and there may be more such wars . . .

Security Council has decided that defense of U.S. factories and cities is sadly lacking and that immediate steps must be taken to beef up our protection from an A-bomb or H-bomb attack. First steps will be makeshift measures. But up for consideration is a long-range program to make America as nearly bomb-proof as it can be made.

Ability to produce weapons. The industrial base concept—relying on arms production capacity rather than standing armies—is now on shaky ground. With the Reds capable of quickly crippling American industry in a surprise attack, top strategists feel we are leaving ourselves in a much too vulnerable position.

This week Civil Defense Administrator Val Peterson said America must go underground or out to the Rockies. His statement may mean another effort to gear plant expansion specifically to civil defense planning, but the job is an almost impossible one.

II. The Korea Buildup

The present U.S. military machine started its rebuilding just before the Korean war broke out. From a defensive standpoint, military men figure that Korea was a lucky break. It forced us to double our military

strength in little over a year. But Korea also caused the bulk of the war machine to be built along World War II lines. Had we gone into total war at that time, we would have been ready to fight—but to fight an old-fashioned war, not an atom war.

• **The Plan**—The basic planning behind the buildup was simple. Instead of going all-out in 1950, we aimed at a force of 3.5-million men—about 25% of our World War II strength—and proceeded to build our arms capacity.

The planning was geared to the idea that, once the arms production base was built, our ability to produce weapons would be virtually limitless. The men in uniform and the equipment on hand would be sufficient to fight an old-style war in Korea. Meanwhile, the strategic Air Force, with its ability to carry the atom bomb to any target in Soviet Russia, would prevent the Reds from launching any all-out war.

• **Temporizing**—But we weren't sure just how much time we would have, nor were we sure how much of a military program the country would support without an all-out war. So the defensive features of the industrial base had to be made secondary.

The planners had to let industry concentrate around the traditional centers, rather than scattering it around the

country in units too small to make good target areas.

• **Bad Guess**—We figured our technological advancement was maybe three years ahead of the Russians. The figuring on technological superiority was off. We underestimated Russian atomic developments. We were brought up short by their tests that showed they had the H-bomb way ahead of time. So now military men are afraid we may have underestimated Russian development of other weapons, too.

Military intelligence has information from behind the Iron Curtain that the Reds are coming along rapidly with guided missiles, fighter aircraft, and long-range bombers. For example: Though Secretary Wilson himself said last week that the best big bomber the Reds have is their copy of the B-29, Air Force insiders say the Russians recently activated their first group of TU-75 intercontinental bombers, with the range and speed of our B-36.

The result of all this is a feeling in the Pentagon that we may have reached a turning point in warfare—that we need to reshuffle our entire military picture.

III. Defense First

If the new program shifts more to building a Bastion America, as a number



but Soviet Russia's atomic armament calls for a new kind of military force.

of experts figure it will, there will have to be a change in the composition of our military strength.

- **Radar Net**—Every study by the National Security Council or the Pentagon calls for the building of a defensive radar line across the northern hemisphere. This line, already being built, has become known as the McGill Line (McGill University made an early study for it). But this electronic defense line has to be backed by interceptors, guided missiles, antiaircraft units, and thousands of men.

The McGill Line envisions a constant radar and combat alert with stations every 20-30 mi. across Canada. This would be in addition to the defenses required to protect against missile attacks from submarines off shore.

- **Manning It**—The military has already taken some steps toward air defense. Pentagon planners are now figuring on putting 75 of the National Guard's 100 or so antiaircraft battalions on a minuteman alert status. Their job: to protect cities and towns in a last-ditch stand in case of attack.

Adm. Radford and his new chiefs would like to see the men and equipment necessary to support a new continental defense program come out of U. S. forces already on duty. But there's little chance of that.

For one thing, until a real agreement is reached in Korea, we'll have to maintain our forces there. And to make sure that European nations keep on working toward a European army of 50 divisions, we must keep most of our men in Europe if they're already there.

IV. New Strategy

It's a military axiom that new weapons bring changes in tactics but do not alter strategy very much. That's why the basic strategy will not be torn apart and rebuilt under the new Joint Chiefs' planning. But the methods of carrying out strategy will change.

- **At Home**—For the first time since the War of 1812, U. S. military planners must build a program geared to a grim possibility: We may be fighting a foreign power on or above our own soil. And their figuring can't be confined to army movements and battlelines. This time, the military have to figure on absolutely destroying the vast majority of the attacking force, and then be able to turn around and hit the enemy in such a way that he can never recover.

- **New Emphasis**—What it adds up to is far less emphasis on the foot soldier, tanks, artillery, destroyers, cruisers, and battlewagons. The main elements will be a striking force of bombers, a hunter-killer force of warships and aircraft

seeking out submarines, an interceptor force of fighters directed by a widespread early-warning electronic network, and batteries of antiaircraft and guided missile battalions.

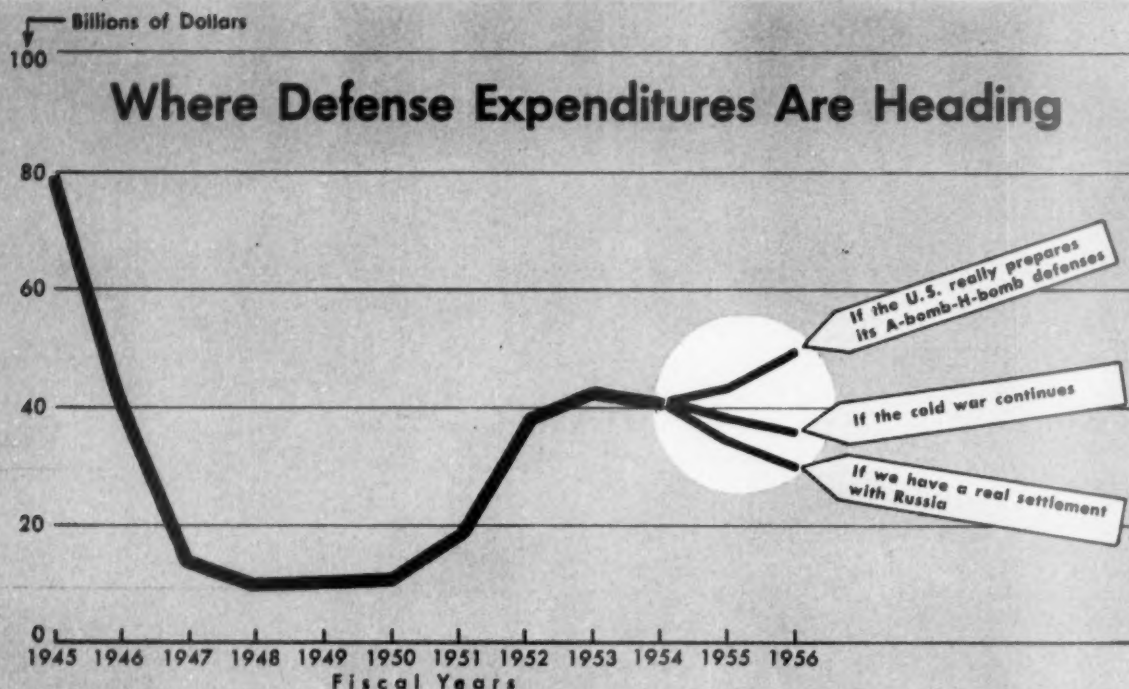
But we still have to keep the other elements, too, just in case we still have to fight more old-style wars.

V. The Cost—in Money

These new elements would cost billions on top of what has already been spent. You hear estimates that range anywhere from \$1-billion to \$20-billion a year extra. But figures that the Pentagon sends to Congress next year will be the tipoff as to exactly how much the military thinking has changed.

The change will not come in the regular fiscal 1955 military appropriation request. It will most likely come in a supplemental appropriation.

- **Downtrend**—The trend right now on military spending is down. We peaked in fiscal 1953 with \$43.9-billion. By the end of this fiscal year, in June, 1954, it will be down to around \$41.7-billion. And, assuming a real settlement with Russia were reached, the present program would diminish by at least \$5-billion a year for the next couple of years anyway. If we continued with the present sort of cold war with no major change in defense strategy, total military



Data: Dept. of Defense and BUSINESS WEEK.

BUSINESS WEEK

Defense spending may turn sharply upward again.

spending would level off in fiscal 1956 to somewhere around \$35-billion.

• **Back Up**—If the National Security Council and the President approve the defensive program required to make meaningful preparations for A- and H-bomb defense, military spending is going to turn around and climb back uphill. Total spending for the first full year, say 1955—including maintenance of forces already active—would probably run between \$43-billion and \$45-billion. Depending on the speed of the buildup and how much defense was required initially, spending might hit close to \$50-billion in the second year.

VI. The Cost—in Men

Even if there's a shift in military emphasis away from the World War II type of action, the cost in manpower will be high.

The defensive features need a lot of new men. In addition, the Army stands to lose up to 40% of its men next year as draft periods and enlistments run out. These men will have to be replaced by newer draftees and new enlistments.

VII. Inventory

The Army right now has the equivalent of seven full divisions in Korea, with little chance of reshuffling these

men until a real settlement is reached. In Europe, there are five more divisions, plus equivalent elements to make up a sixth—again with little chance of pulling out anything.

Another full Army division is in Japan. There are seven—mostly understrength—in the U.S., and a number of regimental units are scattered around in various places like Puerto Rico, Panama, Alaska, and Hawaii.

The Marine Corps has one division and one air wing in the U.S., and two divisions plus two air wings in the Far East.

The Navy is now operating about 1,100 active ships, of which 400 are major combatant ships, plus the equivalent of about 20 air groups. It has 33 carriers: 12 in the Pacific, 16 in the Atlantic, and five in shipyards.

The Air Force has approximately 106 wings on active duty. Of these, 12 are in Europe, plus one or two strategic bombing wings under a rotational program overseas; 19 are in the Far East; two or three are scattered around U.S. possessions.

VIII. Industrial Plant

Last week, ODM boss Arthur S. Flemming submitted his quarterly report to the President. His conclusions:

• The needs of partial mobilization have been largely met.

• Any new mobilization plans to back up a different kind of military effort will have to wait until the President and the National Security Council decide what that military effort is going to be.

The big new thing of the Flemming report was the emphasis given to atomic attack. In times past ODM has relegated civilian and industrial protection to a few paragraphs at the tag end of its report.

• **Keeping Going**—This time, though, Flemming gave as the first requirement of a mobilization program:

"We must be ready to continue the operations of government and our essential production immediately following an attack on the continental United States."

Actually, ODM and the Commerce Dept. are well prepared to give the only incentive they now have to encourage protection—five-year tax amortization. Requirements have already been set up for granting extra special amortization for companies that meet civil defense specifications.

The program has been in the works since last spring, but so far only one company has been granted a certificate. Cincinnati Milling Machine Co. was allowed to write off in five years 100% of its \$500,000 civil defense construction—blast walls, bomb shelters, and strengthening existing structures.

Retailers Hope for Merriest Christmas

● Merchants across the country aren't excited about Christmas. It just looks like the best yet.

● Last year's Christmas set the all-time record. Retailers expect to top it this year. Some think they'll do as much as 10% better than in 1952.

● The baby boom is regarded as a firm base to sale of toys for years to come.

● Customers have money to spend, and they're ready to spend it for good quality items. Quality is better this year, and more imported items are on the shelves.

Last Christmas sales season was the best the stores had ever known (BW—Jan. 10 '53, p. 25). Yet even the more conservative retailers queried by BUSINESS WEEK this week think 1953 will be just as good. And some guess as high as 10% over last season.

Why? City after city reports employment high, liquid savings up from last year, quality of merchandise improved without rise in prices—in all, an orderly stage setting for a great gift-buying splurge. And Christmas Week will have one more selling day than last year.

Not the least of the compelling factors toward buying, retailers say, is the baby boom. "Just think," marveled a Columbus store manager, "we've had 34-million kids born in the country this year—and they'll all have to have a gift of some sort."

Not to mention the millions born last year and the years before.

• **Playthings**—Almost without exception, stores expect toys to do better than any other line. Better, too, than any other year. And buying will be strongest in some of the fancy-tag items: pedal-car tractors, the more elaborate electric trains, the overgrown and overstuffed toy animals that probably please the adult givers more than the juvenile recipients.

An Atlanta retailer, however, suggests that wheel goods sales—terrific a year ago—may decline in favor of popular new games. More stores will be going in for special kiddie promotion stunts this year than ever before, BUSINESS WEEK reporters learned. A Salt Lake City store will put its clerks in clown suits and animal costumes; a Cleveland store plans to draw extra traffic by stabling live reindeer, in rhinestone-studded harnesses, in redwood stalls near Santa's throne.

Christmas promotions in Columbus, at least, will be delayed until after

Thanksgiving. Last year, Santa arrived in shirtsleeve weather, and women's clubs begged merchants not to start so early again—"the kids were disillusioned last year and lost interest."

Whoop-te-do in toy departments isn't considered essential to stimulating a buying urge. It's just a competitive gesture. After all, as a Milwaukee merchant points out, "they never take it away from the kids."

• **Do It Yourself**—Another hot line of goods will be the do-it-yourself field, storekeepers expect. They're planning special displays. They'd like this category to offset the expected poor year for men's wear. "The women and children ordinarily come first," says a Salt Lake City manager, "and men's wear runs dull."

• **Wrought Iron**—Similarly, stores as widely separated as Providence, R. I., and San Diego, Calif., talk hopefully of the vogue for wrought iron as a spur to the normally slow home furnishings season. A San Diego store counts wrought iron pieces—from desk pieces to barbecue sets—among its fastest sellers in recent months. Attractive and not expensive, it could be a top-ranking gift item.

• **Appliances**—Prospects for television sets are good or bad according to the degree of local saturation. Most cities see no rainbow for TV, yet a Milwaukee store looks for a big season of selling TV receivers as "gifts for the whole family." That's because two new UHF stations have just opened in Milwaukee to augment the single VHF station; some families are in the market for second sets.

TV sets are also popular gifts in Salt Lake City. Table radios, too.

Other appliances are slow in most localities, and no Christmas season is expected for them. An exception may be Cleveland, where retailers see a swing back from TV to white goods.

Boston also anticipates a good season for other appliances, with electric blankets running strong.

• **Apparel**—Women's and children's wear should be reliable, as usual, the merchants say. Many managers mention cashmere sweaters and coats for women as especially desired. Lingerie is always good. For men, fancy vests and imported tweed jackets are leading items.

• **Trends**—More imported goods will be on the shelves this year, retailers expect. A Columbus store is having an Import Fair this month; others are featuring imported goods through various other promotion stunts.

Books, particularly nonfiction and specifically art books, are considered to be on the upswing in public favor. A Houston dealer says he has built up the highest inventory ever, and he's not worried about disposing of his stock.

Luxury items have sagged in the past two years. That means furs and the more expensive perfumes and jewelry. But moderately priced perfumes and jewelry are rated high on the best-selling list, and specialty stores in Los Angeles mention furs as one of their mainstays.

"There are always a few guys," says a Pittsburgh manager, "who buy expensive bedjackets, dolls, furs, jewelry. Most of them are the last-minute guys who get filled with the hail-fellow spirit and have the money to throw around."

• **Quality**—The average shopper this season will be looking for good quality even more than low price, retailers agree. That's a continuation of the upgrading of the past year or so, they say.

"Where we offer two or three grades of the same merchandise, the best quality—at the higher price—consistently outsells the cheaper items," says a Chicago merchant.

To one Milwaukee storekeeper, this means stress on maintaining quality: "People may forget the price they paid but they'll never forget or forgive poor quality." But another Milwaukee retailer warns that this doesn't mean people don't watch pennies or dollars: "Women aren't buying a \$2.98 costume belt when a 98¢ one will do just as well."

• **Inventories**—When you ask about ordering for the Christmas season, retailers hover between two clichés:

• "We can get what we want when we want it—there's no longer a shortage of anything."

• "You can't sell what you don't have."

The consensus of retailer opinion is that inventories, over-all, are either equal to last year or up to 10% higher.



BROWSERS looked, mulled, some bought.



TV SET was door prize, kids attacked cokes.



TRADE-IN appraisals had to be fast.



HOWARD BYRNE jubilantly tallied sales.



LIGHTS BLAZED into the night as publicity attracted hundreds. Doors opened at 6 a.m., didn't close until late-comers drifted out. Seven to nine was the rush period as . . .

"48 Cars in 48 Hours:"

At 6 a.m. last Friday, 10 customers, still sleepy-eyed, cheerfully helped lug a large container of coffee and boxes of doughnuts into a White Plains (N.Y.) automobile showroom. It was the kick-off of one of the most hullabalooed car sales in the area. The two-day sale, staged by Byrne Bros., Lincoln-Mercury dealer, was thrown at suburbanites by radio, newspaper, handbill, and sound truck for nearly a week in advance. The goal: to sell 48 new Mercurys in two days.

Dealer Austin Byrne insisted that his was no "distress sale," but he readily admitted that he, like other dealers all over the country, was having a tough

time unloading stocks of 1953 models, with the 1954s just over the hill (BW—Oct. 3 '53, p. 29).

Byrne Bros. billed their "bonanza" as "48 cars in 48 hours." They had the usual door prizes, free cokes, lollipops for the kids, and TV for World Series addicts.

On the financial side, Byrne was ready to trim prices. How much depended on the price of the car but the allowances averaged perhaps \$400. If you had a trade-in, this bonus was tacked onto the trade value. Actually, these terms were not very much better than Byrne and other dealers in suburban New York had been offering right



SOUND TRUCK was updated for second day. Ex-adman Austin Byrne engineered pitch.



CUSTOMERS SWIRLED around salesmen, who tried feverishly to keep tabs on many deals on the fire. Lack of space hurt, but Byrne Bros. managed to sell . . .

Ballyhoo Whoops Up Sales

along. Appraisals on the trade-ins ran pretty tough but the allowance made up for that.

Hard selling was the order of both days as tough-minded customers haggled cagily with harried salesmen. One man dickered for two hours over a trade-in, seemed to waver, and then stalked off to a nearby competitor. Another man just dropped in—and drove off with a new hard top 15 min. later. A regular customer, who had bought a new Mercury a few months before, came in with battery trouble and ended up with a new car.

Not all the sales were that casual. The eight-man staff, bolstered by Aus-

tin and Howard Byrne, tottered home exhausted at 11 p.m. the first day with half the 48 cars sold.

Only one customer turned up at 6 a.m. Saturday morning, but he was sold in an hour. The publicity wailed on unrelentingly and the sound truck was backed up by a huge sign-draped carrier bearing four Mercurys.

When it ended at 11 p.m. Saturday, Byrne had sold 50 cars, had a packet of prospects. Half the sales were cash.

Said Austin Byrne, "From the standpoint of store traffic, the results were sensational." Sales weren't bad, either: \$2,400 worth of publicity had sold \$135,000 worth of cars.



PROSPECT on way to Macy's stopped by.



20 MIN. later, deal was clinched, while . . .



WIFE hastily emptied old car, and . . .



FAMILY drove off, continued shopping.



FREE BREAKFAST drew healthy morning crowds, kept weary salesmen primed.

Patent Giveaway

Court orders GE to throw open all light bulb patents to the public. Antitrusters see it as a landmark case.

A federal district court in New Jersey last week set the stage for some significant changes in the electric light bulb industry. At the same time, it set up what government attorneys think will be a landmark in antitrust law.

What the court did was spell out the terms to enforce a ruling that it had made almost five years ago when it found the General Electric Co. had monopolized and restrained the incandescent lamp industry through illegal use of patents and licensing agreements. The terms, with a few exceptions, are just about what the government's antitrusters wanted.

• **Long Road**—Short of a Supreme Court appeal—and there is a good chance for an appeal by GE—this is the last step in 12 years of litigation between the government and GE over monopoly charges filed in 1941.

Six of the other eight companies accused at that time of helping GE maintain its industry position are directly included in the terms of the judgment. Two others—Westinghouse Electric Corp. and the Corning Glass Works—signed consent judgments before Judge Phillip Forman ruled for the government in 1949.

• **Impact**—The immediate object of the court's action is to end GE's dominance in electric bulbs. But its meaning and impact extend beyond that.

These are the major terms of Judge Forman's order:

- GE must dedicate to the public all existing GE patents covering manufacture of electric light bulbs and parts—the first time in antitrust history such a measure has been ordered by a court.

- GE must also grant any applicant, on a royalty-free basis, any or all existing GE patents on machinery used to make light bulbs.

- GE must grant any applicant, on a reasonable royalty, any or all GE patents developed in the next five years covering bulbs, parts, or machinery, provided the applicant shares its own new developments with GE.

- GE must fill the demand by any user of any existing or future bulb, parts, or machinery patents for complete technical information—including blueprints—on GE's method of using the patent.

These provisions obviously will have far reaching consequences in a modern economy greatly dependent on technological research. Government anti-

trusts say that the GE case in many ways is as important today as the first Standard Oil Co. case, the American Tobacco Co. case, and the sugar monopoly case were in the early days of the Sherman act.

• **Two Sides**—The inclusion in Forman's judgment of the dedication of patents provision—which amounts literally to making an immediate, outright gift—was the key demand pressed by government attorneys after they won the antitrust conviction. GE opposed the provision mightily on several grounds in presenting its side of what the judgment should contain. General Electric argues that Westinghouse and Corning ought to grant back to GE any of their existing patents in return—otherwise, said GE, competitors will be able to move ahead but block GE's technological advance. Most significant, perhaps, is GE's position that manufacturers of products other than lamps might use GE patents to make lamps for their own use and unfairly profit. That is, automobile makers for one—Ford, GM, and Chrysler—could economically make their own bulbs and parts with free GE patents; the same thing would now apply to airplane manufacturers and others incorporating electric bulbs into their products.

But Judge Forman overruled these objections. He said dedication was imposed, not to punish GE but to check competitive advantages gained under the old patents. Reciprocal licensing of GE's dedicated and royalty-free patents, Forman said, would perpetuate GE's industry dominance, which the judgment was designed to end.

Forman rejected the government's demand for divestiture of 50% of GE's bulb and parts production facilities.

Tire Prices Take Out-of-season Jump

When U.S. Rubber hiked its prices on tires by 24% to 5% last week, the public was astonished, even if the trade wasn't.

There were plenty of reasons for the boost by U.S. Rubber and all the other major tire makers, which tagged along after it. Labor costs, in the form of recent boost said to cost the industry \$75-million a year, were the biggest. Plenty of other cost items had risen, too, since the last previous tire price hikes, in 1950. Just about everything was up except natural rubber, down by about two-thirds.

What astonished the public was the timing of the rise, which came when tire sales were dragging seasonally, and inventories were reported to be high. Boosts usually come in a time of heavy demand.

Auto Merger?

The auto industry guesses that Nash and Hudson, caught in the competitive squeeze, may get together.

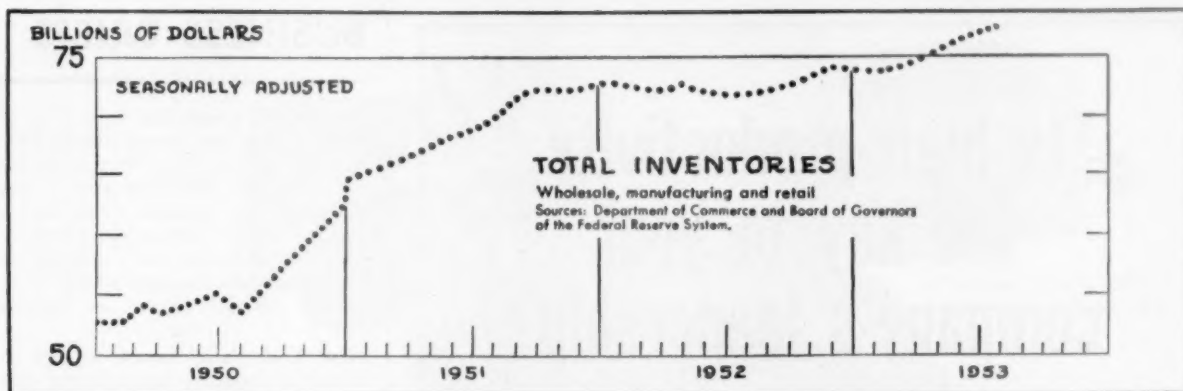
The growing competitive pressure from the auto industry's Big Three promises to put such a squeeze on the independents in 1954 that some may be forced to merge or drop out in 1955. That's the background for reports in the air of some kind of joint operation by two or more independents.

• **In the Air**—Nash-Kelvinator Corp. and Hudson Motor Car Co. are two companies said to be involved. Neither denies that there may be some conversations between them, thus leaving the clear impression that the talks are serious. Even more significant, George Mason, the head of Nash, apparently did not start by talking to A. E. Barit, Hudson's president, but rather first tried to line up the three principal stock-holding groups. The fact that the rumors still persist seems to be an indication that Mason has got some encouragement from the real owners of Hudson.

Both companies have felt the effects of stepped-up competition this year with resulting production shutdowns from time to time. Benefits of combining—the possibility of big savings in overhead and combined purchasing power and of bolstering dealer setups—would put them in a stronger position than the other independents in 1955—the earliest such a complex deal is likely to be arranged.

• **Dual Setup**—There are strong hints that any team-up of Nash and Hudson would not result in the disappearance of either brand name. The feeling in Detroit evidently is that the names of autos that have survived to date are too valuable to be scrapped. An actual merger of the two companies, with brand names preserved, would produce a company whose combined sales so far this year would make it the top-volume independent. Both have models in the low, medium, and upper-medium price fields.

• **Merger Alternatives**—If Nash and Hudson work out something other than a straightaway merger, the joint co-operative venture might operate in several different ways. Bodies and frames, made as units by both companies, could be standardized as to size and thus provide longer, more economical production runs. Or dealers might be put in a better position if they sold both lines of cars and could cash in on brand name preferences of both.



Economists caution:

Cut your Inventories...

...and here is a practical way!

While deliveries are still slow on a few steel products, most types and shapes are in good supply. And every day brings more evidence that a free and easy market for all steel products is not far away.

This situation obviously calls for a closer watch on steel inventories. However, steel demand has outrun supply for so long that a clear statement of the alternatives may be in order.

With inventories high there's always the chance that a change in business conditions or in manufacturing requirements may result in an overstock that can only be liquidated at a loss. But when you keep your inventories at a conservative level, supplementing

them, as needed, from warehouse stocks, you avoid this risk of loss and free extra capital for other work, as well.

The Ryerson organization is particularly well equipped to help you follow a conservative steel buying policy. Ryerson stocks have been steadily improving—both as to available sizes and total tonnage. And these stocks are strategically located in fifteen plants for quick delivery to any area.

Carbon, alloy, stainless steel—whatever you require awaits your call at Ryerson. So we suggest that you check your steel stocks now and keep in touch with your nearby Ryerson plant for quality steel to meet your current needs.

PRINCIPAL PRODUCTS IN STOCK

CARBON STEEL BARS—Hot rolled and cold finished

STRUCTURALS—Channels, angles, beams, etc.

PLATES—Many types including Inland 4-Way Safety Plate

SHEETS—Hot and cold rolled, many types and coatings

TUBING—Seamless and welded, mechanical and boiler tubes

ALLOYS—Hot rolled, cold finished, heat treated. Also tool steel

STAINLESS—Stainless bars, plates, sheets, tubes, etc.

BABBITT—Five types, also Ryertex plastic bearings

RYERSON STEEL

JOSEPH T. RYERSON & SON, INC., PLANTS AT: NEW YORK • BOSTON • PHILADELPHIA • CINCINNATI • CLEVELAND • DETROIT
PITTSBURGH • BUFFALO • CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO • SPOKANE • SEATTLE

Is high productivity the key to your company's leadership?

Do you depend on the modernity of your manufacturing equipment to enable you to meet competition and make a profit?

Is it true in your business that an average age of over five years in the age of production equipment is a danger signal?

Of all the *New Britain Machines for Making Progress*, none is more widely used by industrial leaders to modernize production standards than New Britain's line of precision Boring and Turning machines.

These relatively small, very fast, completely automatic machines are adaptable to the mass production of an almost unlimited variety of contoured metal turning and boring work.

They combine just about everything production engineers look for in modern equipment — adaptability, ease of tooling, economy of operating personnel, simplicity, absolute accuracy, ability to positively repeat from piece to piece, and elimination of finishing operations.

In many plants which are a by-word for production efficiency, New Britain Boring machines have proved a logical first step toward improving over-all productivity.

May we mail you "24 COST CUTTING JOBS" which should suggest some of the many possibilities of these machines in your plant?

Machines For Making Progress . . .

AUTOMATIC BAR AND CHUCKING MACHINES
PRECISION BORING MACHINES
LUCAS HORIZONTAL BORING, DRILLING AND MILLING MACHINES
NEW BRITAIN +8F+ COPYING LATHES

NEW BRITAIN

Automatics

THE NEW BRITAIN MACHINE COMPANY
New Britain-Gridley Machine Division
NEW BRITAIN, CONNECTICUT

BUSINESS BRIEFS

Freight cost absorption by part of the steel industry has become a fact (BW—Sep.19'53,p30). U.S. Steel announced it would reduce delivered prices in competitive cases. National Steel, Jones & Laughlin, and several smaller companies promptly followed suit. Bethlehem Steel and others are reported still on the fence. No legal hitches are expected.

New York State moved to end the runoff of residents' savings into other states offering higher interest rates. The Albany authorities removed all restrictions on the interest rates that may be paid by New York savings banks, savings and loan associations, and by commercial banks on time deposits.

Ire on the Great Lakes is rising, after the collision of a bulk carrier and the German motorship *Wallschiff*. Bulk carrier skippers have long predicted such a crash, which they blame on inadequate pilotage of foreign salt-water vessels on the lakes. The *Wallschiff* had a 15-year-old boy at the wheel and a 76-year-old pilot in charge, and was in the wrong channel when it was sunk. The skippers want every ship to carry two pilots thoroughly familiar with the upper lakes.

Advertising claims of two companies will be toned down under agreements with the Federal Trade Commission. Curtiss Candy Co. will stop saying that dextrose, used in its Butterfinger and Baby Ruth, is only energy sugar. . . . Hudnut Sales Co. will drop the statement that two of its formulas prevent baldness.

Mergers: Timken-Detroit Axle Co. and Standard Steel Spring Co. have united to form the Rockwell Spring & Axle Co., with combined assets of over \$155-million. . . . Stromberg-Carlson Co. has acquired the Southern Electric & Transmission Co., of Dallas, a maker of wire carrier electronic equipment.

Plywood price cuts are spreading. U.S. Plywood Corp. and Weyerhaeuser Timber Co. both trimmed 5% off the price of Douglas fir plywood. Other mills are expected to tag along.

Nickel controls on civilian use will end Nov. 1. But Defense Mobilizer Arthur Flemming says the controls will be continued for military, stockpile, and atomic energy use. Civilian manufacturers will have a free hand with the nickel they can get, but they are not expected to be able to fill their needs for many months.



The Underwood Sundstrand
Model E Accounting Machine

**NOT JUST
PARTLY AUTOMATIC**



Fully Automatic

**for all phases of your accounting
...the low-cost Underwood Sundstrand Model E!**

Compare the fully automatic all-purpose Underwood Sundstrand Model E with any other accounting machine in its price class!

There's nothing simpler! There's nothing speedier! There's nothing more automatic!

That's why it is so fast, so flexible!

With the Model E you can handle any or all of your accounting jobs.

It allows rapid-fire form insertion... high gear keyboard operation... "quick as a flash" form handling.

The "mechanical brain" control plate directs operations, speeds work, minimizes errors.

The famous touch-operated 10-key keyboard is exclusive with Underwood Sundstrand Accounting Machines!

So get your best buy in low-cost accounting machines... the Underwood Sundstrand Model E!

See it demonstrated! Mail the coupon or call your Underwood Representative today. You'll find him listed in the classified pages of your telephone directory.

NO OTHER MACHINE

COSTING SO LITTLE

OFFERS SO MUCH



Underwood Corporation

Accounting Machines... Adding Machines...
Typewriters... Carbon Paper... Ribbons

One Park Avenue New York 16, N. Y.

Underwood Limited, Toronto 1, Canada

Sales and Service Everywhere



The Original
Touch Method
Keyboard

Underwood Corporation
One Park Avenue, New York 16, N. Y.

☐ Please send literature further describing your Underwood Sundstrand Model E Machine.

☐ I would like to have a demonstration.

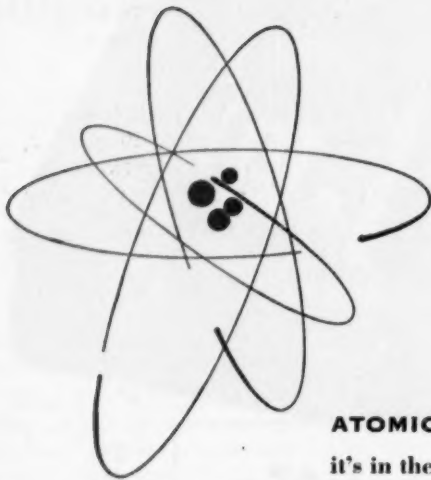
Name

Firm

Street

City State

8W-10-10-88



ATOMIC ENERGY FOR POWER—

it's in the future, and perhaps not so many years away. Combustion has long been at work on the problems involved, and its Nuclear Power Division is presently building major components for America's first atomic-powered submarine. The forward-looking engineering this signifies is reflected in the design of every Combustion-built Boiler, whether for the largest utility or the smallest industrial installation.

Leaders in steam generating and fuel burning equipment for all industries

COMBUSTION ENGINEERING, INC.
COMBUSTION ENGINEERING BUILDING, 200 MADISON AVE., NEW YORK 16, N. Y.



WASHINGTON OUTLOOK

WASHINGTON
BUREAU
OCT. 10, 1953



Business implications of the A- and H-bombs are becoming clearer. It will be months before the Administration fully makes up its mind on how to meet this threat from Russia. Statements of top Washington officials are confusing, often conflicting. But a shift in defense policy is indicated (page 27). The big question: How far and how fast?

Short-term prospects aren't much involved. In the next six months or so, initial steps will be too slow and too small to reverse the softening business trend. A real effort for agreement with Russia will be made before there is any big step-up.

But the long-term outlook may be changing. The talk is that early next year the Administration will ask an additional half-billion, to speed up continental defense. Then, if efforts at an understanding between the East and West fail, the extra defense spending would jump into the billions.

Such a reversal of policy would be felt in production, prices, and sales.

Here's what Eisenhower is up against:

The old picture of World War III was that Russia would start it by marching into West Europe. We were able to use this danger to push our European allies into rearming. They bought the idea, for a while.

The new concept of World War III is entirely different: The first strike would be at the U.S.—a try for a one-punch knockout of the West's arsenal. The U.S. would strike back. Estimates of the devastation to the two countries run beyond belief. And there are signs our European allies feel their greatest safety is in just lying back. Anyhow, they are increasingly reluctant to follow the U.S. lead.

Key goals of the President are at stake. A balanced budget has been at the top of his objectives. He may have to give it up.

Preliminary decisions will be made this fall. A moderate increase in defense spending will start next year. Defense Secretary Wilson has practically said that a \$500-million supplemental request will go up to Congress early next year, and that may be only the starter.

You can anticipate the fields in which new defense demands will fall, keeping in mind that government spending in one line tends to support other lines—especially when you resort to deficit financing.

Electronics tops the list. The \$500-million Wilson has in mind is to step up the radar network (McGill Line) in Canada.

More planes would be next. A better warning system isn't worth much unless you have ways to intercept and shoot down the attackers.

Guided missiles come right behind planes and may even surge ahead. So, more defense means more spending in this field.

Antiaircraft guns come last; they are useful mostly after attackers are over the targets. National Guard units will be put on an alert basis.

Questions behind the A- and H-bomb debate, and the answers, with allowance for the wide divergences in official views:

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
OCT. 10, 1953

Can Russia hit us with a devastating attack? The consensus is she can. The dispute is on when. Wilson thinks Russia needs three more years.

How great would the damage be? Here, the answers are merely guesses. But in an attempt for a one-punch knockout, all important centers of population—say over 100,000—would be targets. Casualty estimates are unbelievable.

Tax prospects won't change much because of any shift in preparedness. Long range, they will follow spending up or down. But short range, the big factor is politics—Congressional elections next year, for example.

Individual income taxes will be cut Jan. 1—\$3-billion for consumers.

The excess profits tax will go, too—\$2-billion for the companies.

The regular corporation rate is not at all sure to be cut. The tax is supposed to drop from 52% to 47% Apr. 1. But Eisenhower is opposed to this cutback. There may be a compromise, around 50%.

Excise rates are up in the air. Cuts scheduled in the law for spring would save consumers over \$1-billion. But the Administration is opposed.

Commerce Secretary Weeks is having his troubles. He would like his agency to be a strong voice for business, just as the Labor Dept. in times gone by has spoken for the unions. But he must compromise.

The Justice Dept. doesn't like advisory councils of businessmen. Justice thinks they might run afoul of the antitrust laws. So, Weeks is setting up his business and defense advisory service along NPA lines. He will rely on industry advisory committees with narrowly defined purposes and with government career men as chairmen—even though he considers them less strong than councils.

On business prospects, the Administration is up in the air. Official line is that "Sure, the boom is over. But business is sound, basically."

There's plenty of closed-door worry about recession. Yet what, if anything, should be done to cushion a letdown is a question that must await Eisenhower's decision on defense. If there's a defense step-up of any consequence, the figuring is that present soft spots will disappear.

If other stimulants should be needed to stop a business slide-off, here's the priority range set up by Eisenhower advisers:

Ease up on the credit supply, to make more funds available to borrowers. There has been some easing already. But other steps can be taken.

Then, cut taxes. This second move would play hob with budget balancing. But it would give individuals and business more money to spend.

Public works come last—to be used if worst comes to worst.

The Administration's underlying philosophy: A really serious recession simply can't develop at a time when Washington is pro-business and when world conditions are so uncertain. This attitude indicates that Washington would try at first to sweat out a dip and might be late if stimulants are needed.



Bank of America, with 538 branches in 330 California communities, is the world's largest privately owned bank. Its shares are held by 220,000 stockholders residing in every one of the 48 states. Resources (as of June 30, 1953): \$8,017,573,360.54.

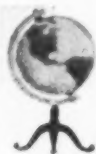
Street scene in Westchester (a section of Los Angeles) where population has grown from 946 in 1940 to 41,233 in 1953.

Building California... *Serving You!*

Every day more than a thousand new people come to California to live. Many follow the example of one-third of the population of this prosperous state and become Bank of America customers. Soon, like their neighbors, they are buying new homes, automobiles—thousands of other consumer goods and commodities. These are the people—this is the economy—that Bank of America serves through 538 California branches. This is banking that is building California and serving you...banking that provides vitally needed credit to one out of every three of your California customers.

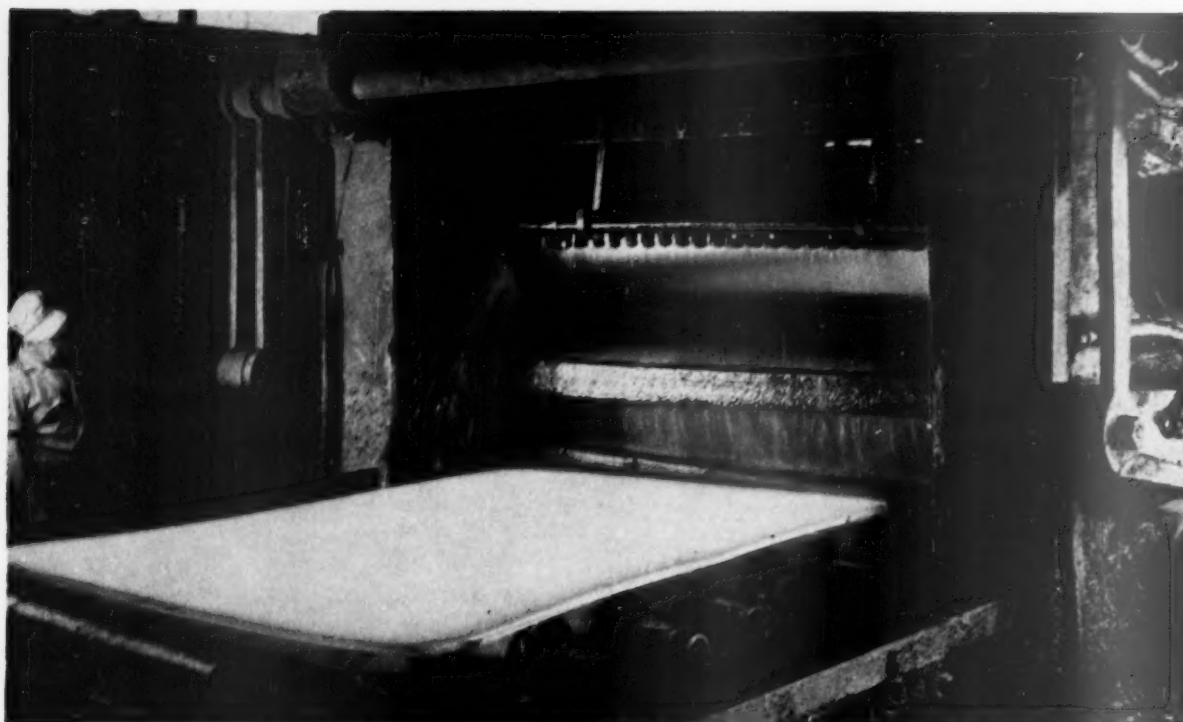
Bank of America
NATIONAL TRUST AND SAVINGS ASSOCIATION

..... *Bank of America is a member of the Federal Reserve System and Federal Deposit Insurance Corporation*



Bank of America has main offices in the two Reserve cities of California, San Francisco and Los Angeles. Overseas branches: London, Manila, Tokyo, Yokohama, Kobe, Osaka, Bangkok, Guam. Representatives: New York, Mexico City, Milan, Paris and Zurich. Correspondents throughout the world. Bank of America (International), New York, a wholly owned subsidiary; overseas branch, Duesseldorf.

COPYRIGHT 1953, BANK OF AMERICA



HOT PLATE SPECIAL rushing from an 89" rolling mill at Barium's Central Iron & Steel Company, Harrisburg, Pa.

Here comes next year's luxury liner

Or a giant oil storage tank or a freight car or a bridge for a super highway.

Wherever it goes, however, high-quality steel plate from Barium's 100-year-old Central Iron & Steel Company rates a warm welcome. And it goes nearly everywhere in basic industry—petroleum, transportation, shipping and construction.

Plate steel is only one of a long list of Barium steel products. In fact, few other steel companies make so many different things.

And when you deal with Barium, you draw on a 16-company reservoir of engineering knowledge and production experience hard to match even in much larger companies.

Maybe that's why so many essential products you see today—from tiny instrument springs to 20,000-barrel tanker barges—wear Barium nameplates. We'll be glad to tell you what's behind this name. Write Barium Steel Corporation, 25 Broad St., New York 4, New York.



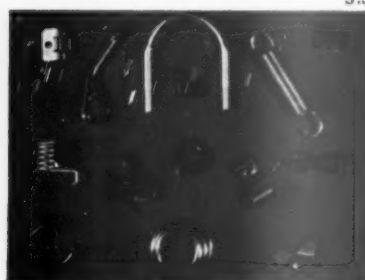
BAYONNE BOLT CORP. • CENTRAL IRON AND STEEL COMPANY • CHESTER BLAST FURNACE, INC. • CLYDE IRON WORKS, INC. • CUYAHOGA SPRING COMPANY • EAST COAST AERONAUTICS, INC. • ERIE BOLT AND NUT COMPANY • GEOMETRIC STAMPING CO. • GLOBE FORGE, INCORPORATED • INDUSTRIAL FORGE & STEEL, INC. • JACOBS AIRCRAFT ENGINE CO. • KERMATH MANUFACTURING CO. • KERMATH LIMITED (CANADA) • PHOENIX BRIDGE CO. • PHOENIX IRON & STEEL CO. • WILEY MANUFACTURING CO.



HAMMERING HOME its point is this drop forge at Barium's Globe Forge, Inc., Syracuse, N. Y. Globe forges a wide range of products, from automotive gear blanks to rocket components and tank parts, specializes in intricate customer-specified jobs.



BIG BOLTS are these 2 in. diameter steel heavyweights being forged on an Acme machine at Barium's Bayonne Bolt Corp., Bayonne, N. J. Bayonne makes standard and special fasteners from 1/4 in. to 4 in. in diameter.

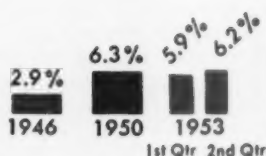


GROUP PORTRAIT showing a few of the almost endless variety of extension, compression and torsion springs, wire forms and flat springs made by Barium's Cuyahoga Spring Co., Cleveland, O. At middle right is famous Snap-Clip.

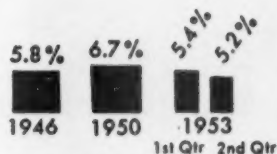
MARKETING

The Consumer Spends His Dollar Differently Than He Used To: PERSONAL CONSUMPTION EXPENDITURES

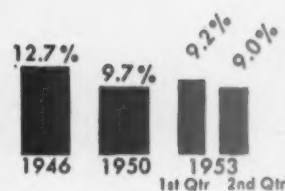
Autos



Furniture, Appliances



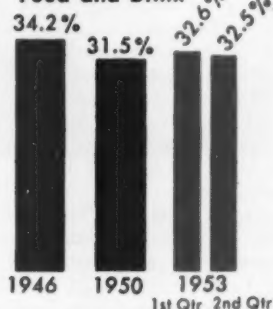
Wearing Apparel



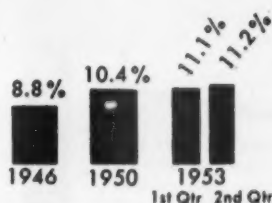
Durables are holding their postwar gains

Apparel has been slipping

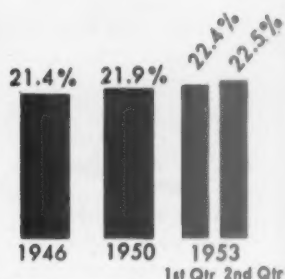
Food and Drink



Housing



Services



Food consumption is actually up, but prices are down

These items are taking an increasing share of the consumer's dollar

Data: Dept. of Commerce

© BUSINESS WEEK

Will the New Buying Pattern Last?

One of the things that has puzzled economists all through the postwar era has been the extraordinary rate at which the U.S. consumer has bought autos, appliances, furniture, and other durable goods. This has been a source of considerable wonderment—and also of some worry.

The wonderment stems from the fact that the rate has stayed so high for so long. At first observers tended to treat it as a temporary and somewhat freakish development. One thing that contributed to this frame of mind was a purely statistical quirk. The high

rate of durable buying tended to make department store figures a not-very-accurate yardstick—they had been a good one during the 1930s—of total retail sales. Department stores sell so high a percentage of soft goods that their stock no longer conforms to the total sales picture.

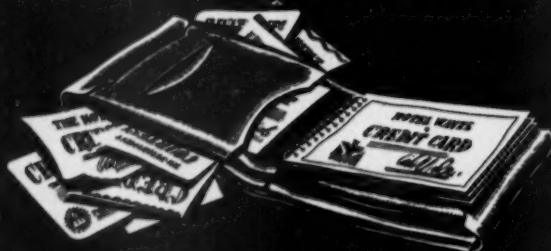
• **Discretionary**—The worry stemmed from the thought of what would happen when the rate of durable goods sales returned to that of the 1930s. This in turn led to a considerable amount of worry over so-called discretionary spending, that huge area of con-

sumer expenditure that can be deferred.

Every time there was a setback, people kissed off the hard goods boom for good. But as time went on and the high level stayed with us, it began to look as though the durable goods boom was more durable than anyone had dared hope. This has led some economists to change their minds about the implications involved.

Bulls and bears both start from the same fact: The ratio of durable goods sales to all consumer expenditures was running at 11.4% during the second quarter of this year. This is about the

At Last...the BATTLE of the BULGE IS OVER!



Gone are the days of the Business man's wallet bulging with scores of credit cards...



NOW! A SINGLE CREDIT CARD IS VALID in Thousands of Leading Hotels in the U. S., CANADA, MEXICO, ALASKA, PUERTO RICO and HAWAII as listed in this complimentary guide.

**SPONSORED AND RECOMMENDED BY
AMERICAN HOTEL ASSOCIATION**

THE SYSTEM IS SIMPLICITY ITSELF:



If, as an individual, you want check-cashing privileges at hotels apply for a CHEKARD.



If, as an employer, you desire for yourself and your executive personnel, privileges of charging hotel bills AND cashing checks... apply for TRAVELCARD.



**TRAVEL LIGHT WITH
TRAVELCARD and/or CHEKARD!**

SEND TODAY for information, application and free GUIDE listing participating hotels.



FILL OUT AND MAIL THIS COUPON:

American Hotel Credit Corporation
Greenwich, Connecticut

Please send me information and application for

☐ CHEKARD and ☐ TRAVELCARD

Name _____ (please print)

Firm _____

Address _____

same as the level in 1929—which immediately raises a question: Is this good or bad?

• **Storm Signals**—At first glance it might look as though we were getting storm signals of another crash. But was the high rate of durables buying the reason for the 1929 crash? Or was it a "normal" pattern for a prosperous period—a pattern that changed only after other factors had brought on the great depression?

Said one government economist last week, "I'm pretty bullish about automobiles and durables in general. I don't look for much more than seasonal dips."

This jibes with the most recent study of consumer buying intentions by the Federal Reserve Board, which showed that the consumer planned no letup in his durable goods buying this year.

• **Saturation**—The whole picture has caused a careful second look at the basic idea of saturation, on which a lot of observers had pinned their belief in an eventual downturn in hard goods sales. The recent study by George Katona and Eva Mueller of the Survey Research Center at the University of Michigan (BW—Oct. 3 '53, p146) brings this into focus. The authors of the study show two things about saturation: (1) An increased living standard in itself tends to generate the need and desire for more goods, which in turn stretches the previous standards of "saturation," and (2) in recent months, consumer psychology has had more to do with the level of buying than has saturation.

• **Lesser Changes**—This raises the question of whether, assuming continued prosperity, a new pattern of sales has been established. Apart from the broad change, there have been localized alterations inside particular industries.

For example, the slippage in the ratio of apparel sales to the whole has been worrying the garment industry for some time. Some observers think they see a permanent change in buying habits that will permanently depress apparel sales below their previous level. Other observers, however, are watching carefully to see whether the theory of the two-year cycle in clothing purchases will hold.

Services are due to take still a bigger chunk of the consumer's dollar than any time since the war. There is a strong price factor working in this area since controls over rent have gone off. Other services, including utilities, have also been creeping up.

There is also a price factor in food. We are actually eating more food than last year, thanks to both ever-increasing living standards and also to a greater population. But thanks on the other hand to lower agricultural prices, food's share of consumer expenditures has stayed pretty steady.

Meet the mechanical marvel behind
"PROJECT TINKERTOY"



This tiny electronic device is the secret behind that amazing U. S. Navy and National Bureau of Standards development you've been reading about . . .

Hush-hush for many months, "Project Tinkertoy" can now be revealed as one of the most remarkable developments in modern electronics . . . a Technique that will very probably revolutionize manufacturing methods in the electronics and allied fields. Radio, television,

aviation, computing, and communications are five of the fields where it is immediately applicable . . . where its ability to produce a wide variety of electronic circuit combinations will produce tremendous savings in materials, time and labor. For further information on its possibilities, applications . . .



Contact Engineering Department

WILLYS ELECTRONICS DIVISION

OF WILLYS MOTORS, INC.
Toledo, Ohio Arlington, Va.

MEMO

TO: Committee on Plant Expansion
FROM: Plant Engineer
RE: Obsolete Power Distribution System

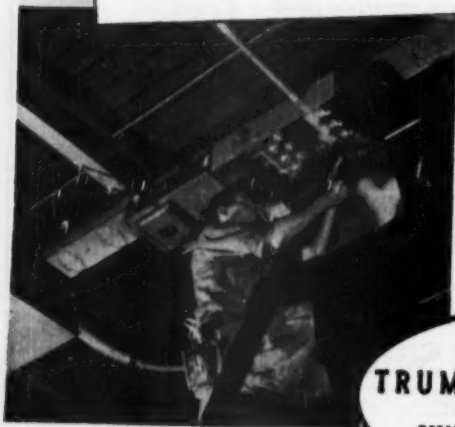
You have asked for my suggestions as to those items that will help us do a better over-all job in the new plant.

To answer that question, let's look at the one reason why we decided in the first place it was necessary to build the new building — the present plant is obsolete. And there is one principal reason why it is obsolete — inadequate power distribution.

Several months ago we changed over most of our production lines to high speed automatics. This placed much heavier load on our already-overworked electrical distribution system, switchgear and breakers. As a result, the investment made in new machinery has not paid off. Maintenance costs are up! Increased machine down-time has had a serious effect on production.

Our power load has doubled every ten years, in keeping with American industry. We can expect it to at least double in the next ten. In the new plant we must install an electrical system that will meet present needs and be flexible enough to handle a lot more power consuming equipment in the future.

P. E.



Flex-A-Power, Trumbull's modern electrical busway system, takes guesswork out of plans for power distribution. It can be altered or extended. It can be dismantled in one building and re-installed in another — quickly, easily and with complete re-use of parts. It points the way to greater efficiency, flexibility, and safety. It's ready for the future today.
 Write for Bulletin Dept. BW-7

TRUMBULL T ELECTRIC

DEPARTMENT OF GENERAL ELECTRIC COMPANY
 PLAINVILLE, CONN.

City-country Gap

... is still something to watch. So Easy Washing Machine is pushing its nonautomatic model in rural areas.

The great gap in customs, habits, and tastes that used to separate country from city in the U.S. has largely disappeared in the past decade or so. But it has not closed entirely, and the remaining differences still loom large enough to shape marketing strategy.

• **Both Ways**—The point is currently being driven home by Easy Washing Machine Corp., which next week will break a national advertising campaign for the Spiralator (\$289.95), the first automatic washer in the company's history. On the face of it, this would make it seem that Easy had finally decided to capitulate to progress.

The nub of the matter, however, lies in the fact that Easy next week will also break a campaign—mainly in farm publications—for its familiar Spindrier washer (\$179.95), a conventional washer with a spinner-drier action.

• **Uneven Market**—This seems to be flying in the face of the facts. This week Bendix Home Appliances, Inc., division of Avco Mfg. Corp., bet publicly that automatic washers will capture another 5% of the home laundry market in 1953. This would bring the automatics' share of sales to 56%.

But Easy's point is that acceptance of the new automatics is far from even. In some metropolitan areas the sale of automatics runs as high as 80%.

By contrast, rural areas and small towns run well behind the national average for sale of automatics—25% of the total market, according to studies. Easy's sales promotion manager, Richard Weiss, lays this disparity to a strong tendency in rural America to carry over habits from previous generations.

• **Farm Picture**—But there is more to it than just a conservative frame of mind. Weiss singles out a number of other reasons why the conventional machine so greatly outsells automatics in the country:

• Some rural communities don't have adequate water pressure for proper operation of the automatics.

• Farmers are chary of using too much hot water and soap, both of which automatics use lavishly.

• Monday is still the big washday down on the farm. The womenfolk still like to do all the week's washing on one day. And automatics just aren't big enough to take the heavy farm washes.

• Automatics aren't mobile, and housewives in the country like to keep their machines on the back porch and roll them into the kitchen for washday.



The mike that runs a mine

Kennecott's Chino Mine in New Mexico has changed its signal system from a steam whistle to two-way radio.

On the newly installed radio system a mine "traffic cop" with a microphone in his hand talks to foremen and locomotive engineers all over the vast pit. This split-second communication speeds up operations . . . makes for more efficient mining.

Kennecott is constantly on the lookout for new ways to improve its mass mining methods which provide so much of America's copper.

Kennecott
COPPER CORPORATION

Fabricating Subsidiaries:
CHASE BRASS & COPPER CO.
KENNECOTT WIRE & CABLE CO.

LOOK!
We do top quality
printing in our
own office with
these amazing
3M Brand Plates



Yes, thanks to 3M Photo-Offset Plates, we're now able to print a lot of our own promotional literature, manuals and catalogs. And with professional results! Every piece that comes off our offset duplicator is crisp, clean, perfectly printed. Colors are richer. Blacks are deeper. Illustrations are reproduced in finest detail. Have these all-aluminum, pre-sensitized plates tested on your company's Davidson or Multilith duplicating machine. You'll be pleased with the professional results.

FREE BOOKLET! Big new executive handbook shows how to get the most from your printing department. Is an actual sample of professional quality work done by the 3M Plate!

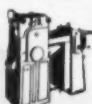


PHOTO-OFFSET PLATES

Pre-sensitized All-aluminum

Made by the makers of "Scotch" Brand Cellophane Tape

MINNESOTA MINING & MFG. CO.
DEPT., BW-103, PRINTING PRODUCTS
DIVISION, ST. PAUL 6, MINN.

- ☐ Send me free booklet plus full information on the 3M Plate.
- ☐ Include name and address of my nearest 3M Plate Dealer.
- ☐ Arrange for a personal demonstration.

NAME TITLE

COMPANY

ADDRESS

CITY ZONE STATE

Made in U.S.A. by MINNESOTA MINING & MFG. CO., St. Paul 6, Minn.

CBS Moves In as TV Maker

CBS-Columbia, network's two-year-old radio and TV manufacturing subsidiary, kicks off a big play for the market with a shindig for dealers, announcement of new color tube.

Last week, from its moorings in New Orleans, the CBS Columbia Showboat went cruising down the Mississippi for an evening sale. Aboard were some 1,500 dealers and dealer salesmen who had been lured with every blandishment in the book—teaser ads, spot announcements on radio and TV stations, direct mail, banners, entrance prizes that ranged from numerous small appliances to a trip to Havana. The object: to sell dealers on CBS-Columbia's line of radios and television sets.

During the afternoon, Wayne D. Bennett, president of Interstate Electric Co., CBS-Columbia distributor, had played host on board to some 6,800 representatives of John Q. Public.

This week, Columbia Broadcasting System gave its set-manufacturing subsidiary another boost. CBS announced a new color tube, which will go into CBS-Columbia receivers. This tube, says CBS, will cost considerably less than the RCA tube, and will work on bigger screens.

• **Growing Baby**—This announcement—and the Showboat hoopla in New Orleans—were the latest signals that a big name in broadcasting was moving in hard on a hot market. It was two years ago that Columbia Broadcasting System took over Hytron Radio & Electronics Corp., electronic tube manufacturer (BW—Jun. 23 '51, p. 28). As part of the deal, CBS also acquired Air King Products Co., radio-manufacturing subsidiary of Hytron. This deal took CBS a step further along the road to selling more than air—the road it took when it launched Columbia Records.

Air King was renamed CBS-Columbia, Inc., and was set up with its own president, David H. Cogan, formerly a Hytron executive. It has been marketing Columbia radios and TV receivers from the start, but only this year, with the acquisition of a new plant at Long Island City, is it set up with the production facilities to warrant an all-out drive for the ever-tougher market.

• **Clouds**—In some ways this might not look like an ideal moment to launch a major sales campaign. It's true that TV and radio manufacturers are mostly predicting that 1953 will be a good year—and could very well be a record year. Sales at retail for the first seven months ran an impressive 3.1-million units. A lot of big-name concerns, including Admiral, Philco, Radio Corp. of America, Motorola, and Magnavox, all reported over-all record sales

for the first six months of 1953.

But production has been moving even faster. For the first eight months this year it was the highest on record—close to 5-million units, and nearly 2.4-million ahead of the same 1952 period. If the industry should turn out 8-million sets, as it will if it keeps on at this rate says one manufacturer, getting rid of them at a profit might prove quite a problem.

Moreover, inventories are high, especially at the factory level. It's estimated that there are some 2.3-million TV sets in the trade pipelines now, against 2-million a year ago. At least one company reports that the usual fall pickup in sales has been slow in developing; any prolonged slump could spell a lot of trouble—dumping, price cutting, and havoc generally.

• **Consumer Question**—There are certain factors in the picture that could persuade the consumer to put off sales for a while. One is the advent of color. Boni, Watkins, Mounteer & Co., Inc., New York consulting economists, are placing their bets that some 6.7-million people will buy sets during 1953—and that some 200,000 who would have bought will hold off to wait for color (BW—Jul. 25 '53, p. 132).

Quality carries more weight than price with the consumer, according to the experts, but the number of price increases reported in the industry lately may still slow down buying some. RCA-Victor, Zenith, Admiral, Philco, Raytheon (on its interim models), and CBS-Columbia (on one model), all upped the tab.

• **Hopes**—While some manufacturers admit they are worried, the industry is mainly optimistic. There's a big replacement market for one thing. But all hands agree that the saving grace in the inventory situation is the new markets that are opening up with new TV stations.

What's more, for all the excitement over color, it's likely that the uncertainty about when the new sets will be available, and the prospect of its high cost, may steer a lot of would-be color buyers to black-and-white TV.

• **Heat Is On**—Whether the optimists or the pessimists prove right, there's sure to be a battle royal in the next months. Turn the pages of most any national consumer magazine and the reader is dazzled by claims and counter-claims from rival set makers.

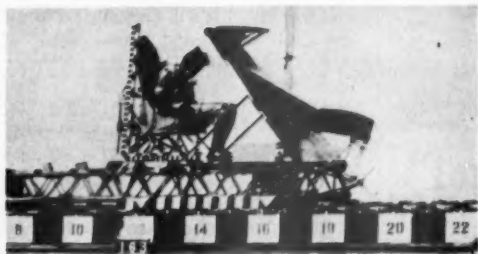
• **New Challenger**—That's the kind of



Sir Isaac did it this way...

Deceleration, momentum and gravity intrigued Sir Isaac Newton in 1660, but he lacked today's scientific instrumentation and therefore had to carry out his experiments on a basis of guesswork.

The Air Force does it this way...



Deceleration forces are a major problem in high-speed flight. To study human resistance to high crash forces and the strength of aircraft components and safety equipment, the U. S. Air Force conducted 233 tests. Crash belts, seats, and even volunteer personnel were fitted with strain gages and propelled at high speeds on a rocket-powered sled, stopping with crash-impacts up to 45 times the force of gravity. Electric signals from the strain gages were telemetered to a Consolidated dynamic recording system where stress, strain and displacement data were all measured and recorded simultaneously, making clear, permanent records for future reference and study.

You can profit by their experience this way...



Progress and profit are closely tied to process control, product development and improvement. Thousands of industries as well as the military conduct performance evaluation through dynamic testing. Consolidated produces high-precision analog-data-processing instruments such as the Recording Oscillograph, left, to record static and dynamic data; analytical and control instruments of the mass spectrometer type for analysis, process monitoring and control; digital data-processing devices such as electronic converters and computers. Perhaps our long experience in the instrumentation field can help you improve your product or process, and thus increase your profit. We would like to discuss this possibility with you.

Consolidated Engineering CORPORATION

300 North Sierra Madre Villa, Pasadena 15, California

Sales and Service through **CEC INSTRUMENTS, INC.**, a subsidiary with offices in:
Pasadena, New York, Chicago, Washington, D. C., Philadelphia, Dallas.

**ANALYTICAL
INSTRUMENTS**

FOR SCIENCE AND INDUSTRY



A Howell sales engineer reports:

"We saved costly machining on these car pullers and got better performance!"

"One of my customers, the Stephens - Adamson Mfg. Co., Aurora, Illinois, had a sturdy, well-designed line of electric-motor-powered car pullers. However, the motor installation was complicated because they had to machine an adapter ring to bolt them to the capstan.

"On a visit to their plant, I pointed out that it was costing a lot of unnecessary money, in labor, machine time and material, to machine both sides of a steel plate to form the necessary adapters. Of course, they wondered what I could do about it.

"I called in our Howell de-

sign engineers. We found that we had a motor type, size and mounting that would do the job better, and eliminate the need for special machining by the customer. They were especially pleased when we showed them how to produce a better unit at lower cost."

Your Howell representative's job is saving you money by making your operations and products more efficient, lower in cost. He will work with your engineers, production men and purchasing department. Find out today how his experience can save you money. His number is in your phone book.



HOWELL MOTORS

HOWELL ELECTRIC MOTORS COMPANY, HOWELL, MICHIGAN

MANUFACTURERS OF PRECISION-BUILT MOTORS FOR INDUSTRY SINCE 1915

battlefield that CBS-Columbia is plunging into. How does it propose to do it?

"There's no simple formula that you can read on page 97 of Harvard Business School textbooks," says president Cogan. But to his mind CBS-Columbia has the three basic requirements:

Basic engineering talent—which is on tap both through the CBS-Hytron division and CBS Laboratories. It was this engineering pool that developed CBS-Columbia's 360 sound system, which the company has tagged "full fidelity".

Production efficiency—which Cogan expects to get particularly from the new plant. This, the company's second plant, brings capacity to some 400,000 sets a year.

Merchandising efficiency—a skill that CBS has developed to a fine point in other lines over the years. Here vice-president Louis Hausman, who has worked with CBS for some years, will make use of all the tricks in his bag—backed up with a \$1-million advertising program for the next few months.

In merchandising, of course, the company has a tremendous assist in the name itself. "We've got the name in records and in programming," CBS officials say. "It's a question of projecting that name into a new field."

• **Fast Maneuvers**—On top of these ingredients, Cogan sees another—to his mind the most important asset of all. That is CBS-Columbia's flexibility. "You've got to be flexible if you come into a market late," says Cogan. "What we have to do is combine the mass-production techniques of the auto-assembly line with the fast merchandising action of the fashion trade."

One good reason for the flexibility is the degree of autonomy that CBS allows CBS-Columbia. "We make our own decisions and our own mistakes," Cogan says.

• **On Its Feet**—In the two short years of its life, CBS-Columbia has already made considerable strides. "We started 68th on the list," says Cogan. "Now we're 10th." It has set up some 75 distributorships, in every major market in the country.

Getting distributors (all but one are independent) wasn't so difficult as it might sound. The realignment of sales setups of some appliance manufacturers—the unification of Bendix and Crosley organizations is a case in point (BW—Jul.25'53,p142)—enabled CBS-Columbia to walk in.

• **In the Stretch**—Finally, in two areas CBS-Columbia is getting an even start with its competitors. One is the new black-and-white market that the new stations will open up. The other is in the wide-open field of color.

Cogan and Hausman make no bones about their ultimate goal. "In this company," they say, "no one thinks in any terms but the top."

end corrosion
troubles with
HARPER everlasting
fastenings

Will the fastenings you use last the life of all equipment you manufacture?

Are they selected to defy the ravages of severe weather—salt spray—corrosive acids—destructive electrolysis?

Many manufacturers have found the small additional cost of Harper Fastenings is more than offset by the better service they render—by the prevention of equipment failure—by the improved satisfaction of customers.

Harper specializes in Everlasting Fastenings of all corrosion-resistant metals. More than 7,000 different items are carried in stock. Harper metallurgists and engineers stand ready to assist you in the development of special fastenings—to solve production problems—to assure product improvement.

Standardize on Harper—secure these advantages: one order to write, one account to keep, one bill to pay. Call the Harper Branch Office or Distributor in your area.

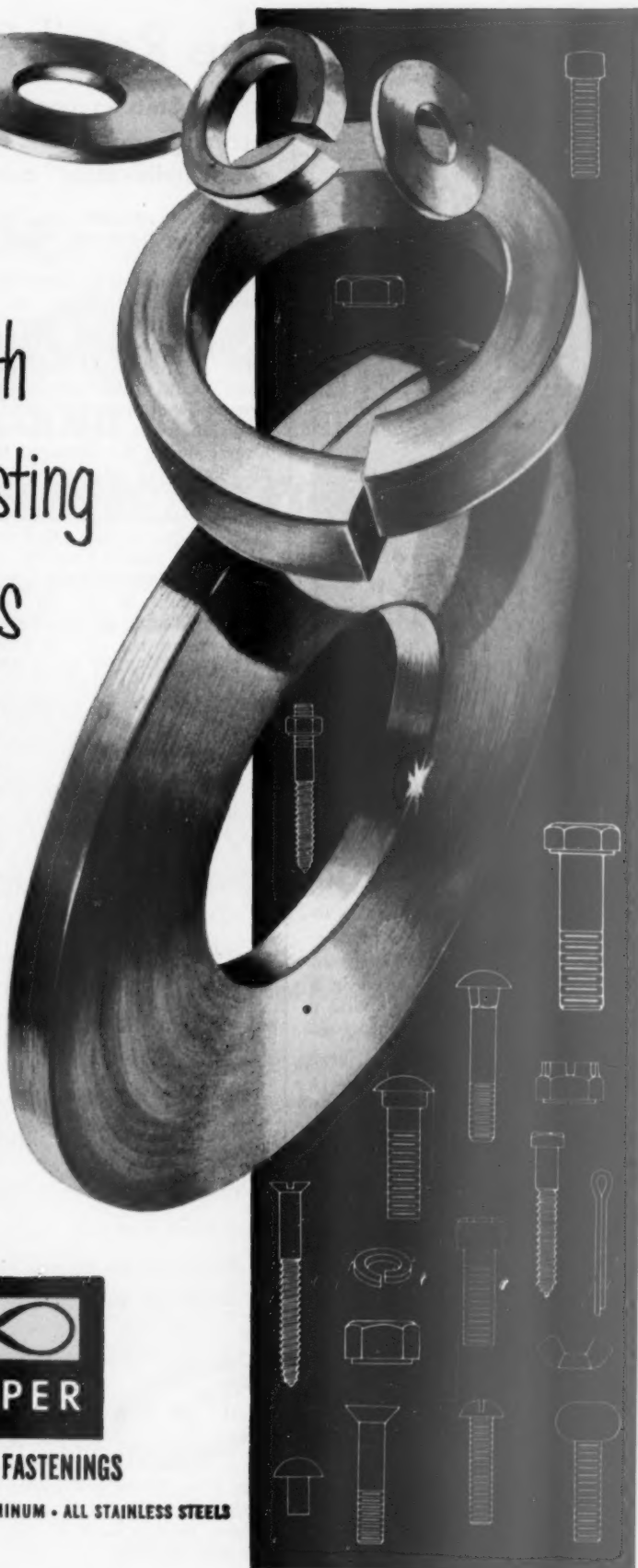
THE H. M. HARPER COMPANY
8225 Lehigh Avenue, Morton Grove, Illinois

SPECIALISTS IN ALL
CORROSION-RESISTANT FASTENINGS



EVERLASTING FASTENINGS

BRASS • NAVAL BRONZE • SILICON BRONZE • MONEL • ALUMINUM • ALL STAINLESS STEELS



**-EVER HOPE
FOR A FENCE THAT
NEVER NEEDS
PAINTING?**



Copperweld
NON-RUSTING
CHAIN LINK FENCE

Copperweld® Chain Link Fence is the protective fence that protects itself. It *never* needs a drop of paint—no maintenance costs to worry about. There's no other fence like it. It is made of Copperweld Wire—with a thick, durable copper covering inseparably "Molten-Welded" to a strong steel core.

Because of its unique construction, Copperweld Fence is rust-proof, corrosion-proof. It provides long lasting property protection regardless of atmospheric conditions. It stays strong and in alignment. It costs less because it lasts longer.

Write today for a sample of Copperweld Fence and a copy of our new catalog—free on request.

*Trade Mark

COPPERWELD STEEL COMPANY
1005 Monongahela Ave., Glassport, Pa.



The Retail Profit Score

Smaller concerns have edge over big ones on net income from sales . . . Lane Bryant battles Dorothy and Dick over "stylish stout" ads . . . New guides for that new leisure.

What department and specialty stores bring down the largest net income from sales?

L. M. Demarest & Associates, a New York firm of engineers and statisticians, has just made an effort to answer the question with a study of the net income of 88 stores and store groups. The resulting list makes interesting reading. One of the things that stand out immediately is the absence of the nation's biggest among the Demarest list of the 10 top-ranking retailers.

Those with the best percent of profit include Diana Stores of New York (\$20.8-million annual sales) with a net income to sales of 4.84%, Richman Bros. of Cleveland (\$30.2-million) with 4.53%, Best & Co. of New York (\$35.4-million) with 4.04%. Largest retailer among the first 10 is San Fran-

cisco's Emporium Capwell (\$70.8-million) with 4.21%.

To find a concern doing \$100-million or better you have to drop down to Mav Department Stores in 13th place.

But if the big stores didn't rank so high as some of the smaller stores, they didn't drop down so low, either. Among the concerns well below the average are the exclusive Manhattan men's store, Brooks Bros., which had a net income of 0.82%. Other low-scorers: Carson Pirie Scott (0.77%) and Milliron's (0.09%).

The Marshall Field group of stores hit the average net income for all 88 concerns right on the nose with its 2.49%.

Here's the way the \$100-million-or-over concerns that were listed by Demarest rank:

	Annual Sales (in millions)	Net Income to Sales
May Dept. Stores	\$447.5	3.61%
J. C. Penney	1,079.2	3.44
Bullocks	117.9	3.03
Federated Dept. Stores	447.8	3.02
Hecht Co.	102.8	2.94
Associated Dry Goods	158.4	2.85
Mercantile Stores	128.6	2.69
Marshall Field	225.5	2.49
Allied Stores	501.8	2.41
Broadway-Hale Stores	102.5	1.96
Lerner Stores	154.4	1.85
City Stores	232.4	1.81
Gimbel Bros.	291.6	1.63
R. H. Macy	332.1	1.09
Goldblatt Bros.	100.0	1.08

Fats in the Fire

A couple of weeks ago on their husband-and-wife radio chat show, Dorothy and Dick, Dorothy Kilgallen and Richard Kollmar discussed the ads run by stores, such as Lane Bryant, that cater to stout women.

Said Dorothy: "Now we come to the matrons who . . . just can't get into anything but a stylish stout."

Said Dick: "This is the slob size."

Said Dorothy: "They'll advertise the women's dress and they'll say this is available in sizes 36 to 44."

Said Dick: "But heaven help them

Celanese^{*} Polyethylene

FILMS AND SHEETING

NOW PERFECTED FOR INDUSTRY

CELANESE POLYETHYLENE, NOW IN VOLUME PRODUCTION IS THE RESULT OF TWELVE MONTHS OF PROGRESSIVE RESEARCH AND FIELD TESTING. DURING ITS DEVELOPMENT STAGE THE SPECIAL NEEDS OF THE PACKAGING INDUSTRY HAVE BEEN THE PARAMOUNT CONSIDERATION.

the Polyethylene you've been waiting for . . .

The new Celanese Polyethylene exhibits improved toughness and evenness of gauge. Its machine handling characteristics, clarity and printing surface make it readily adaptable to all manufacturing and converting operations. Celanese Polyethylene is available in thicknesses from 0.0015" to 0.500"... lighter gauges in rolls or sheets and heavier gauges in sheets...widths up to 54 inches. Deliveries can be fitted to your requirements.

Celanese Corporation of America, Department 129-J, 290 Ferry Street, Newark 5, New Jersey.

Canadian affiliate, Canadian Chemical Company, Ltd., Montreal and Toronto.

Celanese[®]

FILMS AND SHEETING

*Reg. U. S. Pat. Off.

HOUGHTON 1001 Products to improve processing



Greasing the Wheeeels of the "Wildcat"!

Fun's fun—and even grown-up youngsters love the big WHEEEE that goes with riding a roller coaster—especially a tall, high-speed job like the "Wildcat" shown above.

As we say, "fun's fun", but maintaining the high-speed ball, roller and wheel bearings is no circus for ride operators, what with everything being "open to the elements" and taking a beating from heavy loads and screaming speeds.

And that is where Houghton greases and oils show what they can do. Even on this roller coaster, Houghton provides a superior lubricating job and the "stick-with-it" qualities demanded by tough applications.

So—you're not troubled with "Wildcat" greasing . . . may not even have such severe conditions to contend with—BUT—we feel sure that whatever your problem, from rust prevention to metal cutting, you'll find that Houghton has the answers you've been looking for . . . answers accumulated from more than 80 years of intensive research in industrial processing and maintenance products.

Just as a closing thought, why not call the Houghton Man and talk over your troubles with him . . . if he hasn't the answers, he can get them for you and, at any rate, you won't be obligated. E. F. Houghton & Co., 303 W. Lehigh Avenue, Philadelphia 33, Pa.



Ready to give you on-the-job-service . . .

Metalworking and Textile Processing Products • Lubricants • Packings • Leather Belting

if they ever really show an illustration."

• **Reaction**—Lane Bryant and many of its customers reacted fast to Dick Kollmar's use of the word "slob." The store wrote the Kollmars: "Salesgirls were told by customers that you had insulted them . . . called them 'slobs'." Then it added, "Actually the stout women who do shop in Lane Bryant don't consider themselves unattractive."

The Kollmars in the meantime squeezed the controversy for more juice on several of their programs, with Lane Bryant receiving more than occasional mention. Then Lane Bryant ran a newspaper ad ("We have a bone to pick.") complaining about a "radio couple" who seem to "suffer from the delusion that there is only one type of female beauty." But further down in the ad Lane Bryant gave ground: "We have a confession to make. We, too, have accepted perhaps too completely this worship of wispieness and have shown in our advertisements rather slim versions of the merchandise we sell to larger women."

The upshot could be that Lane Bryant models will have to put on a few pounds, thus providing Dorothy and Dick with meat for a few more programs. Sweet are the uses of obesity.

Updates: Leisure

The impact of increasing leisure time in the U.S. is getting a lot of attention this fall (BW—Sep.12'53, p142; Sep.19'53,p144). Here are two new developments:

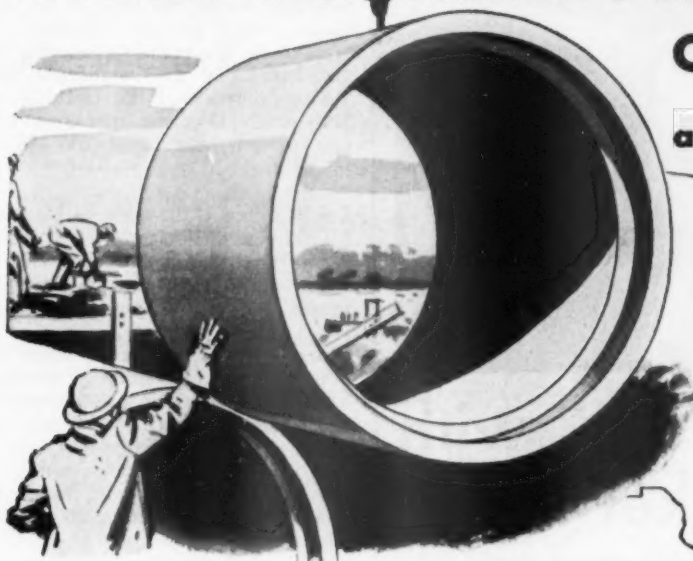
An afternoon session (Oct. 20) of the 22nd annual New York Herald Tribune Forum will be devoted to the subject "Time on Our Hands." It will be a discussion of how the extra hours of leisure created by technological advances can best be put to use.

The Retirement Handbook, by Joseph C. Buckley, has just been published by Harper & Bros. (\$3.95). The author, a New York ad agency executive, calls his book "a complete planning guide to your future." It covers such matters as how to manage your money for retirement security, where to live in retirement, and new careers in small businesses and farming. Buckley wrote the book after a friend told him his retirement plans included fishing and not much else. Buckley answered: "You can fish for 90 days—what then?"

Meanwhile, for those with the leisure to read about the past generations' ideas on leisure, Mentor books is bringing out a 35¢ edition of the acid-soaked *The Theory of the Leisure Class*, classical work by the controversial, early 20th-century economist, Thorstein Veblen.

AMERICAN MARIETTA

... now the Nation's Largest Producer of
**CONCRETE SEWER
and DRAINAGE PIPE**



**32 PLANTS
COAST
TO
COAST**



**American-Marietta's expansion fulfills
a national need by making exclusive
products of these fine companies
available to all America**



LAMAR PIPE & TILE COMPANY—revolutionizing
municipal sewer construction with the exclu-
sive oval-shaped "Tunneliner" pipe, which
passes through itself to extend a tunnel with-
out surface excavation.



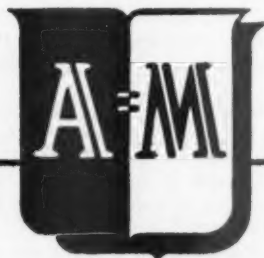
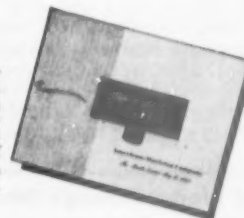
CONCRETE PRODUCTS COMPANY OF AMERICA
—famous for drainage pipe and pre-stressed
concrete bridge sections with designs licensed
to numerous other firms.



UNIVERSAL CONCRETE PIPE COMPANY—leading
manufacturer of concrete pipe for sewers and
drains. Pioneers of flat-base pipe and package
bridges for highway construction.

In the precast concrete field, our
recent expansion has again increased
our growth potential. Designers and
builders like the advantages of our
many products and the way we
pace our activities with advance
research. There will be important
benefits for both customers and
shareowners as we better serve a
growing America.

American-Marietta's dy-
namic growth record is a
story of planned expansion
in diversified, basic indus-
tries. A copy of our 1953
Semi-annual Report of
Progress will be sent upon
request. Address: Dept. CP.



AMERICAN-MARIETTA COMPANY

General Offices: American-Marietta Building, 101 East Ontario Street, Chicago 11, Illinois

Plants Located Throughout the United States and Canada

**PAINTS • CHEMICALS • ADHESIVES • RESINS
METAL POWDERS • BUILDING MATERIALS • HOUSEHOLD PRODUCTS**



ToolTips

A Column of Money-Saving uses of Black & Decker Portable Electric Tools



Quick "Inside Story" with a Black & Decker Drill

Wool, bagged and stacked for future use, is quickly and accurately sampled in this U.S. warehouse at Denver, Colorado, with a Black & Decker drill equipped to draw cores from random sacks. Shrinkage, percentage of foreign matter and other facts are quickly determined. This technique was developed by the Department of Agriculture and U. S. Testing Laboratory; could readily be adapted to fast, economical sampling of any similar substance in bulk.

Tool With a "Flare" For Work!



On-the-site installation of large custom-built boilers has frequently posed tough problems. One such: how to insure tight, permanent fit of tube ends. Solution: An expansion flaring bit on a Black & Decker drill. After tubes are inserted, the Black & Decker drill flares out the tube ends quickly and effectively, expanding them in the plate for permanent seal.

It Walks Through Steel!

Boring of propeller struts on boats was once a difficult and time-consuming job. Now, with Black & Decker portable power, accurate boring and aligning of struts is done in less than half the time. A Black & Decker drill, supplying power through a chain of four gears, turns a boring tool fitted with a threaded insert. The boring tool literally "walks" its way through the strut, and the bore is ready to receive bearing and propeller shaft.

What's Your Own Problem?

Day in, day out, more and more manufacturers (building contractors, plant maintenance men, automotive repair shops, too) discover the solution to their problems in Black & Decker portable electric tools—drills, screwdrivers, grinders, sanders, saws, valve refacers, polishers... They find that Black & Decker tools frequently do jobs three, five, even *ten* times faster than old methods. Black & Decker tools may be the answer *you've* been looking for. Mail the coupon, now for your copy of Black & Decker catalog, giving data on more than 100 portable electric tools.

THE BLACK & DECKER MFG. CO.
Dept. W-1, Towson 4, Maryland

Please send me my FREE copy of the Black & Decker Portable Electric Tool Catalog.

Name.....

Company.....

Address.....

City.....State.....

MARKETING BRIEFS

Santa Claus as usual is the verdict for most concerns that give business gifts. A survey by Advertising Requirements magazine found that 60% of the companies would give such presents this year. Tide magazine, in another survey, found that 38% would not. Both studies underscored the fact that nobody really likes the custom—but no one knows how to stop it (BW—Nov. 8 '52,p45).

L & M Filters is the name of Liggett & Myers' new filter cigarette. The filter is of "highly purified" alpha cellulose, which removes "over a third of the smoke," Liggett & Myers says.

Three-D drive-in theater is under way near St. Louis. The Fred Wehrenberg Theater Circuit plans a two-screen, indoor-outdoor theater, in which one screen will be for 3-D presentation. In cold weather, the audience can sit in a building with 700 seats, watch the show through the windows.

Special rates for trips downtown are growing. San Francisco's Municipal Transit System just started its "Shopper's Shuttle," at a nickel a ride—one-third the regular fare. And Reading Co. opened a free bus service to carry shoppers from its Jenkintown station near Philadelphia to the York Road Shopping Center.

Emerson Radio & Phonograph has gone into the air-conditioning business. It acquired a majority interest in Quiet Heet Manufacturing Corp. Emerson's new subsidiary will also put out units to sell under the Emerson name.

Show train idea, popular with appliance and industrial product manufacturers, is finding new customers. Hickok Manufacturing Co. started its Hickok Gift Show Train on a transcontinental tour this week to show off its men's belts, jewelry and gift accessories.

Marks & Spencer, British chain that sells style at budget prices (BW—Jun. 13'53,p50), reports a 16% increase in sales last year over the preceding year. Total sales came to £85-million (\$230-million). Average sales for the 236 stores came to roughly \$1-million.

Truckers who go into Tennessee may have to pay a gasoline tax if they carry more than 18 gal. of gas. The state passed such a law in 1939, but has never tried to enforce it. Now Finance & Taxation Commissioner Z. D. Atkins has asked for a ruling on whether he can collect.

BUSINESS IN MOTION

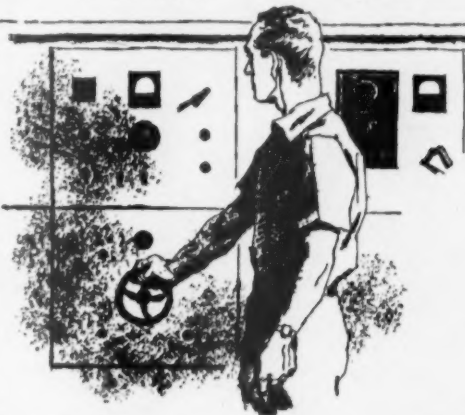
To our Colleagues in American Business...

Paul Revere was the first American to learn how to roll copper successfully, over 150 years ago, and some historians claim this was his greatest contribution to the growth and protection of our country. It is known that he constantly sought ways to make better products, using methods of investigation that seem primitive when contrasted with today's industrial research. Nevertheless, he can be said to have set a pattern of research that this company follows faithfully. Other companies, most of them younger, have likewise set up programs to search for methods of making better things, to develop new materials and processes to take full advantage of scientific knowledge. Industrial companies the country over are now spending large sums on such projects; one chemical company spent \$50 million last year, and half its sales were of products unknown 20 years ago.

- Research is a vital part of the American competitive system, because companies faced with competition inevitably turn to the laboratories, asking them for new ways to offer greater service, increased economy, and how to step up production rates. Thus it can be said that industrial research is motivated by the desire to obtain sales advantages. It is interesting to note that in countries where cartel systems throttle competition, research is much less actively pursued, and its benefits often are delayed in reaching the public, since there is no need for one company to seek to outstrip another.

- In this country, research is widespread, as we well know through our collaboration with companies working on the most diverse problems.

It was the Government that made practical the conversion of matter into energy, which now presents many peaceful and beneficial prospects. Academic workers in "pure science" are busily probing into the why of many things. Non-profit organizations, scientific research firms, industrial laboratories, creative inventors — all play their parts energetically. Much of this activity is necessarily conducted in secret, until the time comes when practical results have been achieved, and can be brought into the marketplace.



- This constant research activity has added tremendously to the progress of our country. Practically everything we have today has been touched by science, and improved by it, whether it be a loaf of bread, an automobile, or a pair of socks. The mass of useful knowledge that has been accumulated is astonishing, and so is the equipment that is used in uncovering it. If Paul Revere could visit us today, he would be amazed by the quantometer and the spectrograph, and by X-ray diffraction, which we, like other companies, employ daily. If he should visit other laboratories he would see still more instruments of magic. Benjamin Franklin, a friend of Revere, would be greatly interested by man-made lightning, produced in order to understand the phenomenon better, and learn how to protect wires and equipment from it.

• Research is an integral part of American business, and we would like to suggest that since so many companies maintain laboratories like ours, you might consult your suppliers when a difficult problem arises. One of them may know the answer, or if not, may be willing to have the research staff seek for it.

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

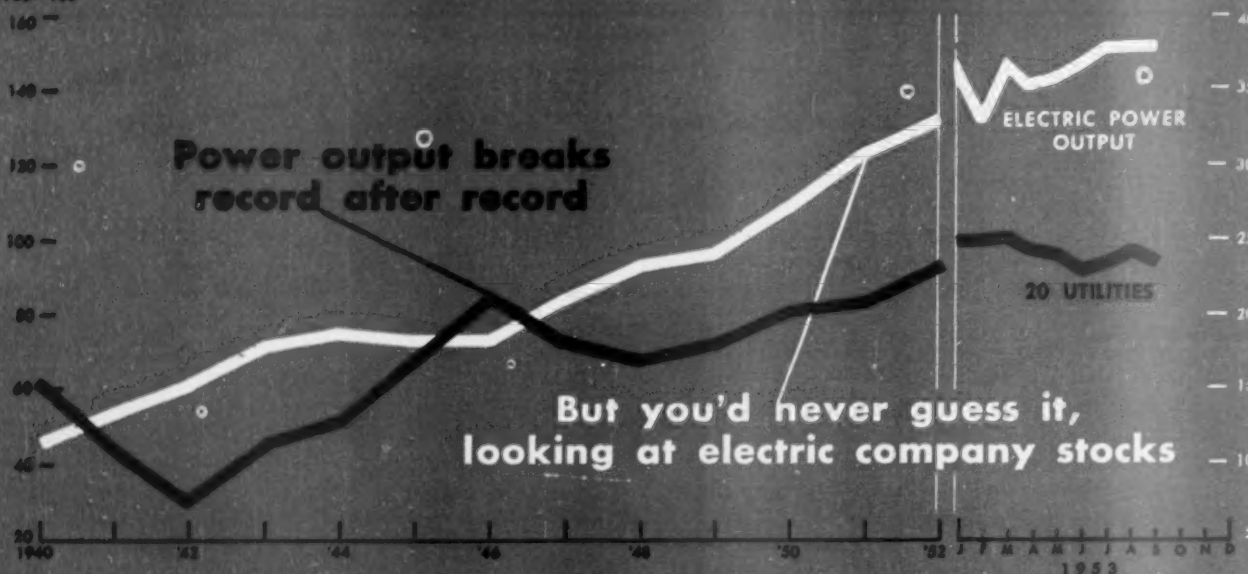
Executive Offices: 230 Park Avenue, New York 17, N. Y.

SEE REVERE'S "MEET THE PRESS" ON NBC TELEVISION, SUNDAYS

FINANCE

Index of
Stock Prices
1926 = 100

Power Output in
Billions of kwh.
Monthly Average



Data Standard & Poor's Index of 20 Utilities: Edison Electric Institute

Continued over

How the Utilities Are Doing

(millions of dollars)

Company	1950	1951	1952	Interim Report First Half 1953	First Half 1953
BOSTON EDISON					
Total Operating Income	\$69.0	\$74.2	\$78.8	\$39.5	\$41.6
Net Income	7.7	7.8	8.1	2.0	2.0
Net Per Common Share	3.13	3.16	3.20	0.83	0.83
Common Dividends	2.90	2.80	2.80	1.40	1.40
COMMONWEALTH EDISON					
Total Operating Income	271.4	281.2	304.3	155.9	171.1
Net Income	29.1	26.8	33.5	19.0	21.0
Net Per Common Share	2.12	1.93	2.25	1.30	1.36
Common Dividends	1.60	1.70	1.60	.90	.90
CONSOLIDATED EDISON					
Total Operating Income	392.7	417.4	436.0	N.A.	N.A.
Net Income	39.2	39.2	45.1	N.A.	N.A.
Net Per Common Share	2.44	2.26	2.63	N.A.	N.A.
Common Dividends	1.70	2.00	2.00	1.00	1.10
CONSOLIDATED GAS (BALT.)					
Total Operating Income	79.4	83.8	90.9	44.4	51.0
Net Income	10.0	9.3	10.1	5.3	6.3
Net Per Common Share	1.86	1.69	1.81	0.96	1.18
Common Dividends	1.35	1.40	1.40	0.70	0.70
IDAHO POWER					
Total Operating Income	14.8	16.7	19.1	8.8	10.6
Net Income	3.1	3.3	3.8	1.6	2.1
Net Per Common Share	2.79	2.87	2.79	1.38	1.52
Common Dividends	1.80	1.80	1.80	0.90	1.00

Company	1950	1951	1952	Interim Report First Half 1953	First Half 1953
NEW ENGLAND ELECTRIC SYSTEM					
Total Operating Income	107.0	105.0	111.6	55.4	59.3
Net Income	10.5	9.7	9.8	5.0	5.7
Net Per Common Share	1.43	1.31	1.18	0.59	0.62
Common Dividends	.80	.80	.87½	.42½	.45
PACIFIC GAS & ELECTRIC					
Total Operating Income	237.4	279.5	314.0	N.A.	182.6
Net Income	37.8	36.9	47.0	N.A.	30.6
Net Per Common Share	2.48	2.04	2.30	N.A.	1.67
Common Dividends	2.00	2.00	2.00	1.00	1.00
SOUTHERN CO.					
Total Operating Income	130.7	151.1	163.9	N.A.	N.A.
Net Income	16.3	16.9	20.2	N.A.	N.A.
Net Per Common Share	1.07	1.04	1.18	N.A.	N.A.
Common Dividends	0.80	0.80	0.80	0.40	0.40
TEXAS UTILITIES CO.					
Total Operating Income	67.2	81.8	93.7	41.9	49.0
Net Income	11.4	13.1	16.3	6.9	8.2
Net Per Common Share	2.40	2.69	3.12	1.30	1.45
Common Dividends	0.96	1.38	1.73	0.84	0.94
WEST PENN ELECTRIC					
Total Operating Income	93.9	99.9	106.2	53.0	56.8
Net Income	11.2	10.4	12.8	6.6	7.3
Net Per Common Share	3.49	2.97	3.24	1.65	1.72
Common Dividends	1.85	2.00	2.05	1.00	1.10

Can Profits Grow as Fast as Sales?

(Story continues on page 61)

Who's behind this steering wheel?



Eastman
CHEMICAL PRODUCTS, INC.
KINGSPORT, TENNESSEE

In one way, you may be: Although this handsome wheel may differ in design from the one in your car, it has much in common with millions of other steering wheels in American cars. It is made of TENITE, an Eastman plastic.

In another sense, Eastman is behind this wheel. For it was Eastman chemical research that developed TENITE, a plastic of unusual toughness and durability.

Manufacturers choose TENITE for many reasons. It has high impact resistance, making it shock- and shatterproof. It is rapidly molded, smooth and lustrous in finish, and available in 23,000 colors. It is pleasant to the touch in either hot or cold weather.

Wherever a tough, durable, colorful plastic is needed, you'll find TENITE. In your car, it may form control knobs, brake handles, arm rests, and horn buttons. And you'll find it in hundreds of other applications from fishing reels to typewriter keys, from crude oil and gas pipelines to telephone housings, from tool handles to toys.

TENITE is an example of vital chemical products being made economically available through Eastman production know-how. This know-how is at your service. A technical representative will be glad to call.

Sales Representative for TENNESSEE EASTMAN COMPANY, a division of EASTMAN KODAK COMPANY



Color photo by d'Arazian

FIVE BLAST FURNACES AT J&L'S ALIQUIPPA, PA., WORKS. Here iron ore, coke and limestone are charged into the top of the furnace, and heated air is blown into the bottom. Molten iron is tapped from the furnace about every five hours.

**J&L
STEEL**

**Starting Signal
of Industry
... the BLAST that
begins steelmaking**

Steelmaking begins in the blast furnace, where iron ore is reduced to iron.

This molten iron then is made into steel in open hearth furnaces and Bessemer converters.

J&L's 13 blast furnaces are huge structures which include modern equipment for handling raw materials, for carrying on the

reduction processes, and for tapping and transporting molten metal and slag.

To produce 1000 tons of iron, J&L's modern blast furnaces consume 1800 tons of iron ore, 900 tons of coke, and 500 tons of limestone. They also consume 4000 tons of air!

That is a normal daily diet!

JONES & LAUGHLIN STEEL CORPORATION
PITTSBURGH

"... the holder of electric utility shares is on the threshold of a new prosperity ..."

PROFITS starts on p. 58

Plenty of new business is rolling in the door of the nation's electric utilities.

The Federal Power Commission reported last week that U.S. power production in the year ended Aug. 31 exceeded a half-trillion kwh. for the first time in history. The 500,522,435,000 kwh. figure was 11% higher than the preceding 12 months.

• **More to Come**—And Tomlinson Fort, vice-president of Westinghouse Electric Corp.—a company that must gauge in advance the demand for power-producing equipment—told the annual fall conference of the Maryland Utilities Assn. that sales will be 43% higher by 1958 than they were last year.

Fort broke down the predicted increase in sales this way:

- To industrial users, 35.6%.
- To commercial users, 37.7%.
- To residential and rural users, 63%.

Any such 43% over-all increase in power sales over a six-year stretch would, of course, require a new and sharp expansion of productive capacity.

At first glance, it would seem that the holder of electric utility shares is on the threshold of a new, and practically unavoidable, prosperity. In fact, that's just what the bulls among the stockholders will tell you.

There's another school of thought that is much less optimistic about the outlook for profits from the increased power production. These people point out that in the stock market (charts, page 58), the utilities have failed to rise in step with the expansion of power sales.

It's true that most utilities have been consistent dividend earners (computations, page 58). But they generally do not have the opportunities for bonanza runups, such as the oil companies can show after a new strike, simply because their rates are regulated.

• **Defensive**—Just the same, many investors are carrying heavy batches of utilities in their portfolios, because of their "defensive" nature. In times of market uncertainty, they are less prone to violent downward swoops.

There are two important facts to remember in weighing the future of the utilities:

• In the period from 1940 to 1952, the utilities were squeezed by regulated rates, which rose less swiftly than costs.

• The same inflation that ran up



Out-of-the-way heaters capture runaway heat

Another problem solved with Trane heating products

"CAN YOU PREVENT heat from being wasted by high ceilings? Can you install a heating system that will not take up production space or interfere with cranesways?"

These were the questions a leading appliance manufacturer asked heating engineers when planning his new factory.

The answer to both was, "Yes. With TRANE Projection Heaters we can drive wasted ceiling heat down to worker level. By equipping these heaters with TRANE patented Louver Cone Diffusers (adjustable for up to 60% greater throw) we can mount them far above the cranesways."

The results were as promised. Heat waste is negligible. Not a single foot of manufacturing space was sacri-

ficed. There is no interference with cranesways.

But that's not all. This system has other important advantages. TRANE Projection Heaters with exclusive Louver Cone Diffusers make it possible to diffuse heat in any desired pattern, wide or narrow; to the left or right—even divided streams. Louvers are quickly adjustable to meet changing needs.

It's easy to see why space and cost conscious managements and their consultants prefer TRANE Unit Heaters. Like all products in the complete line of TRANE heating, ventilating and air conditioning equipment, they're designed to solve specific problems—solve them better, more economically.

For better solutions to your problem, contact your nearest TRANE Sales Office. In the meantime, write for a copy of "Temperatures by TRANE." The Trane Company, La Crosse, Wis. • East. Mfg. Div., Scranton, Penn. • Trane Co. of Canada, Ltd., Toronto • 87 U.S. and 14 Canadian Offices.



Dramatic smoke test picture illustrates another important cost-reducing feature of TRANE Unit Heaters. Exclusive Louver Cone Diffuser (quickly adjustable) beams worker comfort in any desired direction—no need to re-locate heaters when work stations are shifted.

TRANE

**manufacturing engineers of
air conditioning, heating
and ventilating equipment**



**"Remember duh good old days when there
wasn't so many Cyclone Fences?"**

● No wonder these burglars are blue. Wherever they go, they are stopped cold by Cyclone Chain Link Fence.

Besides barring the way to burglars, Cyclone Fence keeps out hoodlums and other trespassers. This rugged fence also restricts employees and visitors to the use of official entrances and exits. Ingeniously

designed and strongly constructed, Cyclone Fence retains its trim appearance through the years.

Send for our free booklet. After reading about Cyclone's many special features, you'll understand why so many plant executives choose Cyclone Chain Link Fence. Use the handy coupon below.

CYCLONE FENCE DEPT., AMERICAN STEEL & WIRE DIVISION, UNITED STATES STEEL CORPORATION
WAUKEGAN, ILLINOIS • SALES OFFICES COAST-TO-COAST • UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U-S-S CYCLONE FENCE

Cyclone is the trade-mark name of fence made only by Cyclone. Accept no substitute.

FREE BOOKLET ON FENCE

Our informative booklet is filled with photographs, drawings and graphic descriptions of different styles of fence and gates for the protection of property. Whether you're interested in a few feet of fence or miles of it, you'll find this booklet worth your while. Send for your copy. It's free.

CLIP THIS COUPON — SEND IT TO —

Cyclone Fence, Waukegan, Ill., Dept. 4103

Please mail me, without charge or obligation, a copy of your booklet.

Name.....

Address.....

City..... Zone..... State.....



UNITED STATES STEEL

utility costs also nipped the purchasing power of dividends.

Another fact that worries some investors is the necessity for continuously expanding plant, to keep up with demand. One observer put it this way: "If the electric power companies could stop expanding, they could stop issuing senior securities to cover new construction costs, and common stocks would get the leverage."

• **Mandatory Growth**—That's a vain hope. Every time a factory installs a new tool run by electricity, every time a homeowner gets a TV set or an added light fixture, the base for the demand of electricity is broadened. When more current is needed, more generating plants must be built.

Ralph J. Cordiner, president of General Electric, says that the electric utilities will have to double their capacity in the next 10 years. He thinks companies should set up expansion and modernization programs now based on probable 1964 needs, rather than thinking of a possible recession.

Actually, the industry is already doing pretty well in plotting new generating units.

This year the electric utilities will spend about \$1.3-billion on construction, compared with \$976-million in 1952. About a fifth of the \$1.3-billion will come from internal sources—retained earnings, depreciation, and the like. Long-term loans will provide another 59%, and the remaining 21% will come from sale of preferred and common stocks.

• **Some Pluses**—Whatever the construction picture may be, Wall Street bulls find these favorable factors riding in the wake of increased power sales:

• Revenues will continue to rise.

• Operating costs should continue under control, with the newer and more efficient plants coming into operation.

• Higher revenues should bring a further increase in earnings.

• In the years to come, dividend increases should be fairly general.

• More rate increases are on the way.

The bulls feel that the bigger earnings will in the long run offset the "temporary" dilution of common earnings through the sale of new shares to finance expansion.

• **Carrying Through**—The bears warn that the complex job of carrying rate increases through into net in the face of rising materials, labor and tax bills, should not be overlooked.

Between 1946 and the start of 1953, regulatory bodies granted the electric utilities over 300 increases. More than 70 of them were granted last year.

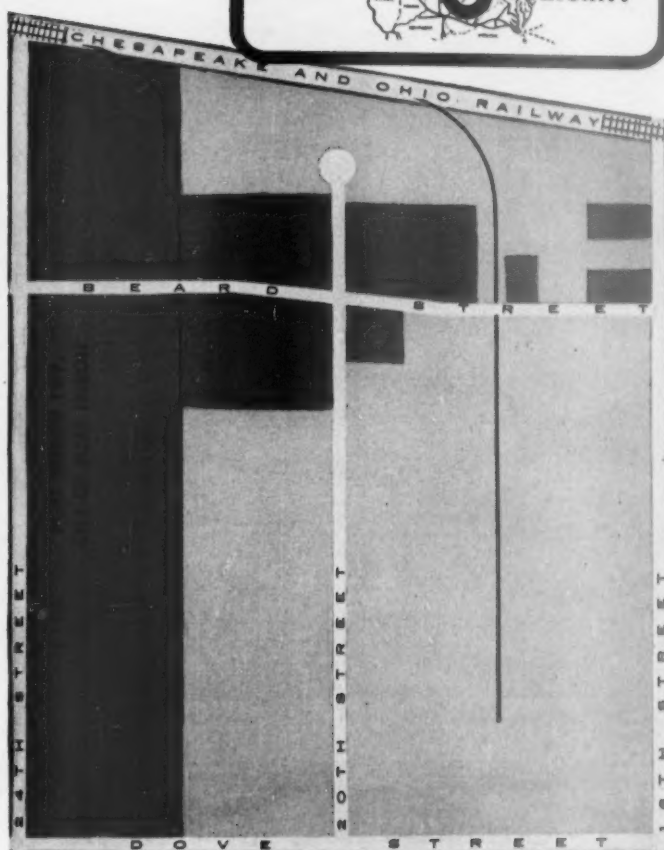
But the power companies' return on net property last year increased to only 5.78% from 5.66% in 1951, although the rate base was raised 11% and

INDUSTRIAL CENTER OF OPPORTUNITY



You'll have
good neighbors
in the

**PORT
HURON
MODEL
INDUSTRIAL
DISTRICT**



The light areas indicate the properties available

There are many advantages in becoming part of a carefully planned development such as the Model Industrial District now being organized at Port Huron, Michigan. Port Huron is a good location, too. Excellent transportation by rail, water, or highway. Close to Detroit, Pontiac, Flint and Saginaw.

Labor is no problem because it is an ideal place to live; a friendly city with all kinds of recreation at hand.

The Model Industrial District includes 185 acres which will be divided into sites

600 feet deep and as wide as desired.

Several other properties are also available in the Port Huron area. All are on the railway and range from 6 to 152 acres.

For a Pin-Point Survey giving full information on Port Huron or other industrial sites, write to either the Chesapeake and Ohio Railway, Industrial Development Department, Cleveland 1, Ohio, Detroit, Michigan, or Huntington, West Virginia or address your inquiry to the Industrial Development Corporation of the Port Huron-Marysville area, 1109 Military St., Port Huron, Michigan.

CHESAPEAKE and OHIO RAILWAY

S E R V I N G

VIRGINIA • WEST VIRGINIA • KENTUCKY • OHIO
INDIANA • MICHIGAN • SOUTHERN ONTARIO

OSBORN



BEFORE: Closeup of helical gear before deburring

AFTER: deburring with Osborn Brushing Machine

Gone . . . costly thorns in their side

Burr removal by muscle methods is aggravating because it is costly, inefficient and non-uniform in quality. Here's how a truck manufacturer has banished these "thorns in the side" with *push-button brushing*.

The operation: to deburr, break and blend the flank edges of gear teeth prior to shaving and heat treating. Formerly done with a hand tool, in several operations, the work was tedious and required close inspection and reworking to meet rigid specifications. Now, an Osborn Brushing Machine in one speedy operation smooths the entire tooth edge . . . produces *uniform blending* of surface junctures of *every tooth*. Result: lower costs and greater precision for *better performance* of the product in service.

Find out how you can cut *your costs* and improve *your products* with power brushing. Call the nearby **Osborn Brushing Analyst** or write **The Osborn Manufacturing Company, Dept. A-21, 5401 Hamilton Ave., Cleveland 14, Ohio.**

FREE! New booklet on deburring with Osborn Power Brushing. Write for your copy.



Osborn Brushes

OSBORN POWER, MAINTENANCE AND PAINT BRUSHES AND FOUNDRY MOLDING MACHINES

operating earnings were up 13%. From the market angle, Standard & Poor's index of 20 utilities has gone up a shade over 55% in the years since 1940, while electric output has climbed almost 225%.

Most investors agree that the stability of the utilities in fluctuating markets is a strong factor in their favor. This is clearly shown in the following comparison of 1953 yields of S&P's industrial, utility and railroad common stock averages:

	'53 High	'53 Low	Last Week
20 Rails	6.84	5.43	6.83
50 Industrials	6.29	5.46	6.21
20 Utilities	5.73	5.04	5.59

Cities Scramble . . .

. . . for more taxes as rising operating costs push up their budgets higher and higher.

In a scramble for additional income to meet rising administrative costs, cities—big and small—across the nation currently are looking hard for new non-property tax revenues to forestall slapping another boost in rates on already hard-pressed real-estate taxpayers.

And the tempo of the search is likely to be sharply stepped up as the day for drawing up 1954 municipal budgets comes closer. Here's a **BUSINESS WEEK** roundup of what's happening:

In Baltimore, a proposal is being weighed to increase the present municipal tax on commercial users of gas, electricity and telephones.

Other Baltimore proposals include a new mercantile tax of 3 mills per \$100 of gross receipts of businesses and professions, similar to a tax now levied by Philadelphia, a new tax on hotel room rentals, an increase in the present local impost on open-air garages, and possible extension of this latter tax to all public garages.

Also in the running are a new local Baltimore tax on soft drinks at the source, and a new tax against bank depositors having checking accounts of over \$250. The rates of the latter tax would range from \$1 on \$250 accounts up to \$25 on those averaging more than \$25,000.

In Milwaukee, proposed new revenue sources include a new 3% municipal amusements admissions tax, boosts in all city license fees (including hikes of \$400 to \$600 in tavern licenses and \$350 to \$500 in liquor store fees annually), a hotel occupancy tax of 25¢ per room a day, a sewer service charge, and a special fee for carting away garbage from hotels and restaurants.

In Albuquerque, N. M., the City

the
switch
is to
**STAINLESS-
CLAD
PLATES**

for lower costs...
extension of material supplies

More and more, economy-minded buyers are switching to Stainless-Clad Steel Plates as an effective means of extending supplies of critical materials and of beating the high cost of stainless steel.

They find that in numerous types of fabrication these plates give them all the advantages of stainless steel, including high resistance to corrosion—yet with considerable savings in material costs.

Stainless-Clad Plates made by Claymont are a composite of stainless steel permanently bonded to carbon or alloy steel plate. They're easy to fabricate; will not buckle, crack or peel under the severest forming operations. Stainless cladding may be of any specified percentage of total plate from 10% to 50%.

Other Claymont products include Flanged and Dished Heads, Large Diameter Welded Steel Pipe.

To order, write or call Claymont Steel Products Department, Wickwire Spencer Steel Division, Claymont, Delaware.

THE COLORADO FUEL AND IRON CORPORATION—Denver, Colorado

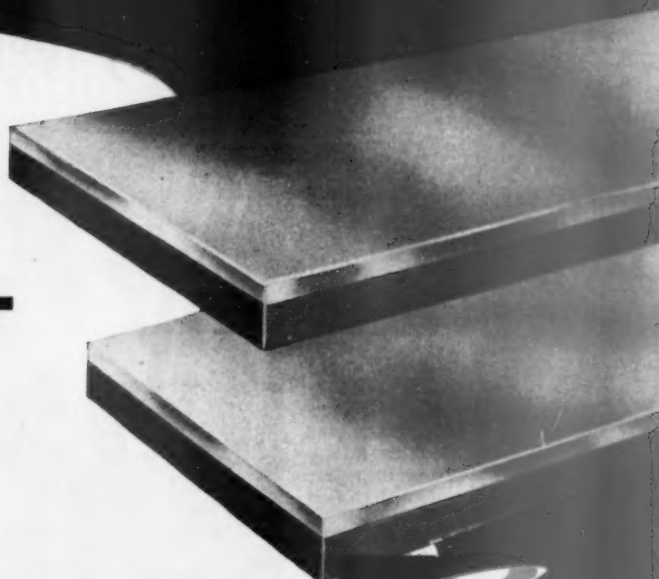
PACIFIC COAST DIVISION—Oakland, California

WICKWIRE SPENCER STEEL DIVISION—Atlanta • Boston • Buffalo • Chicago • Detroit
New Orleans • New York • Philadelphia

CANADIAN OFFICES: Toronto • Winnipeg • Edmonton • Vancouver

CLAYMONT STEEL PRODUCTS

PRODUCTS OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL AND IRON CORPORATION



Flanged and Dished Heads



Carbon and Alloy Steel Plates



Large diameter steel pipe



Even before Noah's time, the weather cycle was controlled by "feedback"—a sequence of interdependent events, each a cause and each an effect of the other. Rain is an example. Heat causes the evaporation of surface water, which rises in the form of vapor, is cooled and falls to the surface of the earth again. Automatic control engineers call this a feedback cycle.

But there's more than feedback in a good automatic control system

At General Controls we have been refining the feedback principle for 23 years. The single aim of our research and design engineers is to build *greater sensitivity and faster response* into General's automatic controls. As a result, they give dependable, long-lived, trouble-free service—maintain closer balance between the variables under control—minimize oscillation and cut down time-lag in the feedback circuit. They are designed for simplicity, yet they incorporate more than one function in each control. These are refinements that make the difference between "adequate" and "the best." And for the *best* in controls . . . it's General Controls.



GENERAL CONTROLS

Glendale, California • Skokie, Illinois

Manufacturers of Automatic Pressure, Temperature, Level and Flow Controls for Heating, Home Appliances, Refrigeration, Industrial and Aircraft Applications.

FACTORY BRANCHES IN 35 PRINCIPAL CITIES

See your classified telephone directory.



for home comfort, winter and summer, General's wide line of heating controls, refrigeration controls and room thermostats place the indoor climate under *your* command.



for industry and the military . . . General Controls makes many kinds of refrigeration, heating, level and flow controls, of which this "Hi-g" aircraft valve for pressurized liquids and gases is an example.



Council plans to boost municipal income with a city 1¢ a-pack cigarette tax, a boost in the local motor fuel tax from 1¢ to 1¢ a gallon, a rescaling of the occupation tax to a straight \$1 per \$1,000 of gross annual revenue, and an increase in the sewer tax from 50¢ to 80¢ monthly for the first four household outlets.

St. Louis is asking the Missouri legislature to extend beyond its expiration date next April a state enabling act allowing the city to levy a municipal income tax of 1/4 of 1% on the earnings of all persons and corporations within the St. Louis city limits. Through this tax, St. Louis collects about \$8-million a year.

• **Solution?**—The quest for new revenues is not confined to a few cities. Mayors from 800 towns and cities in the United States and Canada attending the International Municipal Congress at Montreal last month agreed that the revenue situation had gotten pretty well out of hand.

St. Louis seems to think the solution is a tax on earnings of individuals and companies employed or engaged in business within the city limits. A pamphlet describing the operation of the levy says:

"Tax authorities call the earnings tax the best answer to the problem that faces every big city today—the movement of upper and middle-income groups to the suburbs.

"Most of the wage earners in those groups still work in the city. They spend a third or more of their time in the city five days a week. They earn their money there. Their daily presence makes the city government considerably more expensive. But they no longer support the city or the city services they use while at work. Like it or not, they are 'free riders.'"

• **Boston and New York**—But it's the nonproperty tax source that's the object of the current hunt for new municipal money spigots to tap.

A group of experts has been named in Boston to study that city's financial problem, and make recommendations. Giving the experts a sendoff, Mayor John Hynes made a particular point of the fact that while other cities have income, sales or other nonproperty tax revenue sources, Boston remains primarily dependent upon real-estate taxes.

But Boston is better off than New York City, which has the nation's jumbo problem. Its nonproperty revenue sources already include a 3% sales tax. And in New York, as in other cities, municipal costs have been rising all along the line. City officials feel that they will have to retain all present levies and find and develop new ones to meet the 1954-55 budget, which is destined to exceed the record \$1.5-billion outlay for the present fiscal year.

The Outlook for Currency Convertibility

EIGHT years ago the International Monetary Fund was created for the purpose, among others, of assisting "in the establishment of a multilateral system of payments . . . and in the elimination of foreign exchange restrictions." The 1953 annual report and the address by Ivar Rooth, managing director, deal largely with that objective.

This new emphasis is encouraging, because it reflects progress toward international financial balance. Yet the outlook for convertibility would be more promising if this progress had taken place with less American financial aid, and if less reliance were placed on further financial assistance and on unilateral action by the United States in lowering trade barriers and stimulating foreign investment; also if it were made clearer how convertibility is to be reconciled with other objectives.

Reasons for Inconvertibility

Why has the restoration of convertibility taken so long? The answer depends partly on point of view. The familiar reply is that the physical destruction and economic dislocation caused by the war created an abnormal demand for foreign goods in many countries and at the same time reduced the ability of those countries to pay for the goods by exporting. In particular, there was an urgent need for goods from the United States, because this was the only large industrial nation whose productive capacity had not been impaired by the war. The result was a persistent disequilibrium in balances of payments, especially the "dollar gap" in payments between the United States and other countries.

From another point of view, convertibility has not been achieved because it has been subordinated to other objectives. In an effort to make the "terms of trade" as favorable as possible, most countries tended to fix the exchange values of their currencies too high.

Conflicting Objectives

Adherence to the gold standard deprived nations of control over their internal price and wage levels. If they got seriously out of line, they caused disequilibrium in the balance of payments, a flow of gold, and an internal credit readjustment that forced prices back into line.

Such readjustments sometimes entailed temporary recessions in business activity and employment. Hence they were incompatible with any national "full-employment commitment," as well as with wage and agrarian programs that involved price manipulations, and with social-welfare schemes that upset national budgets. In short, nations came to demand a degree of sovereignty over their internal affairs that was inconsistent with the needs of the gold standard, or in fact with any set of lasting parities among currencies.

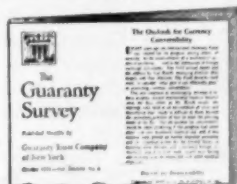
The natural result was an era of currency devaluations. Historically, the devaluations have been partly due to war and other emergencies. Even without such extraneous factors, however, the refusal of nations to "play the game" according to the old rules must have destroyed the exchange stability that formerly existed.

Fixed Parities Still Required

Fixed currency parities still command world-wide respect and adherence. The nations desire convertibility at a firm rate. But are they prepared to pay the price? Or are they aiming at a set of mutually incompatible objectives?

From the October issue of THE GUARANTY SURVEY, monthly review of business and economic conditions published by the Guaranty Trust Company of New York.

The complete issue is available on request to our Main Office, 140 Broadway, New York 15, N. Y.



Guaranty Trust Company of New York

Capital Funds \$380,000,000

140 BROADWAY

FIFTH AVE. AT 44th ST.
LONDON

MADISON AVE. AT 60th ST.
PARIS

ROCKEFELLER PLAZA AT 50th ST.
BRUSSELS

Member Federal Deposit Insurance Corporation



For the tops in courteous, dependable service and late model cars that are clean, easy-driving, filled with gas and oil, ready to go! Reserve "your car" from any NATIONAL member.. in principal cities here and abroad. For a Courtesy Card write to:

**NATIONAL
CAR RENTAL SYSTEM**

1209 WASHINGTON - ST. LOUIS 1, MO.

Mail
2,000
words
for 3¢



You can do it with 10 sheets of Millers Falls Onion Skin Substance 9 — and the sheets will lie *thin* in your files. Tough and durable — this 25% cotton content paper won't be punched through in typing... printing is sharp and clean.

Economical Millers Falls Onion Skin is available in 6 colors for color-coded inter-office communications — a crisp paper of character.

Write today on your letterhead for your **FREE** Sample Sheet — showing all colors, weights and finishes.



Bank Trains Its Tellers and . . .



. . . Clerks by Dummy Scrimmage

New York's National City Bank decided that it shouldn't use the customers as guinea pigs for the training of its new employees. So—

The bank has set up a Training Center, which is really a fully equipped model of a bank in the \$50-million class. There the employees can learn by doing, till they have their jobs down pat.

Each week the center graduates about 75 tellers, junior clerks, file clerks, adding machine operators, typists, IBM proof machine operators, and bookkeepers. Most of them are new employees, but a few are older hands being prepared for promotion in the ranks of the bank's 14,000 employees. The courses last from one to four weeks,

depending on the needs of the job.

The center is believed to be the first such project in the country. It is directed by C. R. P. Rodgers, assistant cashier, and has a faculty of 10 drawn from the National City staff. The campus of the school is on the 15th floor of the bank's branch at 42nd Street and Madison Avenue. The school complements, but is quite distinct from, National City's long established training program at the college level.

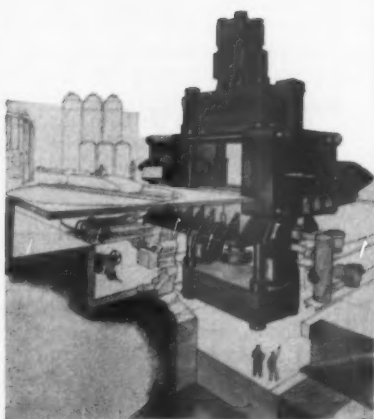
The top picture shows a teller trainee practicing the handling of deposits and withdrawals with a dummy customer. Around one-half of the bank's tellers are girls. Lower picture: adding machine instructions.



A NEW ERA IN STEEL FORGING

BEGINS IN HOUSTON

This new multiple ram forging press, the largest of its kind ever constructed, utilizes the Cameron Closed Die Extrusion Forging Process. The press forgings produced approach for the first time the broad field of intricate shapes that have been limited heretofore to steel casting. A new era begins in steel forging resulting in improved quality at a lower cost.



Main Ram — 11,000 Tons
Each Side Ram — 6,000 Tons
Piercing Ram — 3,000 Tons
Total Weight of Press — 3,100,000 lbs.

For further information write

**FORGE AND ORDNANCE
DIVISION**

Cameron
IRON WORKS, INC.
HOUSTON, TEXAS

ALONG THE WAY... OF **TWA**

3-D Movies for Milan!

DIRECT SHIPMENT FROM MIDWEST PLANT TO ITALY VIA TWA SPEEDS NEW SCREEN IN TIME FOR PREMIERE

WHEN AN ITALIAN MOVIE HOUSE RECENTLY ANNOUNCED 3-D...THEY BOUGHT A 40-FOOT POLARIZED SCREEN FROM WALKER AMERICAN CORP. IN ST. LOUIS. BECAUSE SPEED AND CAREFUL HANDLING WERE IMPORTANT, TWA'S DIRECT AIR CARGO SERVICE WAS USED. ALTHOUGH ONLY A FEW HOURS REMAINED BEFORE THE PREMIERE...SHIPMENT VIA TWA MADE ON-TIME DELIVERY POSSIBLE.



ONLY TWA serves all major markets in U. S. A. and 21 world trading centers overseas.

- Provides scheduled all-cargo transatlantic round-trip service every week between N. Y. and Paris.
- Operates Speedpak service from Paris to Bombay, Colombo and intermediate points.

HOT off the press

NEWSPAPER AND MAGAZINE PUBLISHERS ARE BIG USERS OF TWA AIR CARGO FACILITIES. IT'S FAST. IT'S EASY. IT'S ECONOMICAL. GET TWA RATES, SCHEDULES TODAY.



CAUTIOUS HANDLING



OF 3-D SCREENS OR ANY MERCHANDISE IS ASSURED WHEN YOUR SHIPMENT GOES VIA ONE CARRIER **ALL THE WAY** TO IT'S DESTINATION. FIXED RESPONSIBILITY IS AN IMPORTANT SAFEGUARD.



All TWA Flights carry Air Mail Air Express and Air Freight

TWA
TRANS WORLD AIRLINES



FINANCE BRIEFS

Continued strength in the tax-exempt market now has pushed the bond buyer's municipal bond yield index down to 2.82%, compared with 2.86% a week earlier. Since yields decline when prices rise, this means prices of tax-exempt issues are at the highest levels since May. Bond men, however, are keeping their fingers crossed. Next week will see a test of the market when the \$105-million New Jersey Turnpike Authority issue goes on sale.

Presque Isle Corp. has arranged to borrow \$15-million for construction through sale of bonds to an insurance company. . . . Technicolor, Inc. has completed negotiation for private placement of \$5-million of 4½% notes, due 1969. . . . Tampa Electric Co. has sold \$8-million of first mortgage bonds, 3.7% series, due 1983, to institutional investors.

Two new big hotels are going up: Hotels Statler Co., Inc., is beginning construction of a \$15-million 1,001-room hotel in Dallas, Tex., and Hilton Hotels Corp. is breaking ground for a \$14-million 450-room luxury hotel in Beverly Hills, Calif. These are the first big hotel projects since construction of the Statler in Los Angeles a year ago.

Interest of 2½% on 1-year time savings deposits—highest rate offered by any bank in the Chicago area—was put in effect by the Main State Bank the first of this month. "We believe that savers should share in the higher return we now receive on the money we loan and invest," says L. Shirley Tark, Main State president.


Cross-trends in carpets: Mohawk Carpet Mills, Inc., has increased prices around 5%; James Lees & Sons Co. has reduced its prices 6% to 10%; and Alexander Smith, Inc., while announcing it has "no plans to change prices," is closing a plant at Yonkers, employing 600, to "keep inventories at proper levels."

Lower demand has brought further reductions in output of alloy and stainless steel by Republic Steel Corp. at its Canton and Massillon (Ohio) plants. At Canton, the company now has 12 out of 17 electric furnaces out of operation. In Massillon, four open-hearths are down because of lack of orders.

The Treasury's short-term borrowing costs dropped this week to their lowest level since March 1951. Monday saw \$1.5-billion of 91-day bills sold at a price equal to an average yield of but 1.39%.



A CONCRETE ANSWER TO METAL PROBLEMS

 Soon — more aluminum from Canada: A mile high in the Coast Mountains of British Columbia, these men have poured concrete footings for the towers of a transmission line such as you've never seen. This line is destined to carry aluminum production's basic requirement — electric power — to a great new aluminum smelting installation, the Kitimat plant of the Aluminum Company of Canada, Ltd. ("Alcan").

It is an extraordinary line. Its towers will face blizzards and gales such as no other transmission line has ever had to withstand. Its aluminum cables, reinforced with steel, are the largest ever spun. The

more than a million horsepower that it is designed to carry will have to travel 48 tortuous miles, climb 5300 feet over a pass, and span gorges that exceed half a mile from tower to tower.

The last footings are in. Within months, power will move over the line to Kitimat, and with each 20,000 kilowatt-hours Alcan will produce another ton of aluminum ingot.

As distributor of Alcan aluminum in this hemisphere, the Aluminum Import Corporation is pleased to report that Kitimat is proceeding on schedule. Soon — more Alcan aluminum for defense, industry, farm, and home. Soon — more jobs for metal workers.



ALUMINUM IMPORT CORPORATION

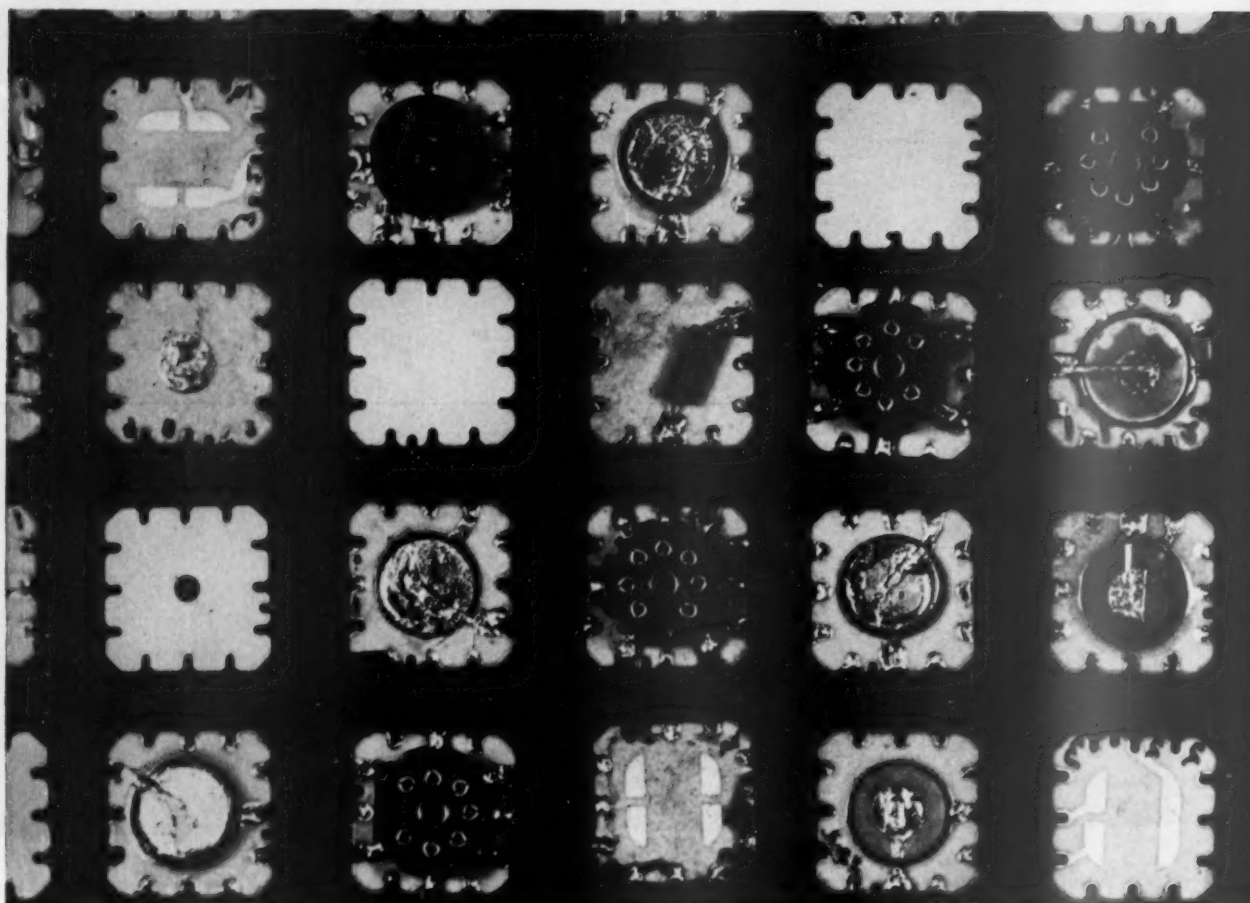
Distributing company of the **ALUMINIUM LIMITED** group, in the Western Hemisphere

Offices and agents in 40 cities

Cable address: **ALIMPORT**

630 Fifth Avenue, New York 20 • 20 North Wacker Drive, Chicago 6 • 505 Terminal Tower, Cleveland 13
510 West Sixth St., Los Angeles 14 • Av. Ing. Luis A. Huerge 1279, Buenos Aires • Rua Da Quitanda 96, Sao Paulo

PRODUCTION



Electronic building blocks for radio set are the ceramic wafers (left) on which circuit parts are mounted.

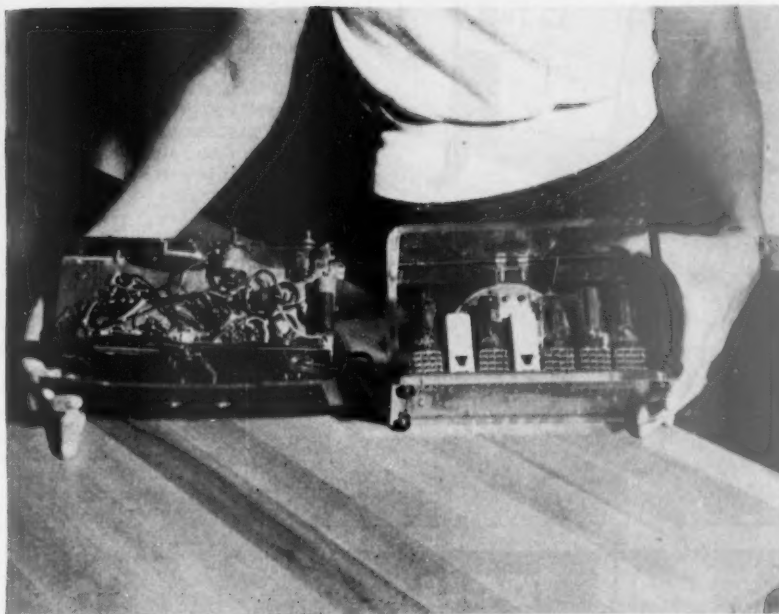
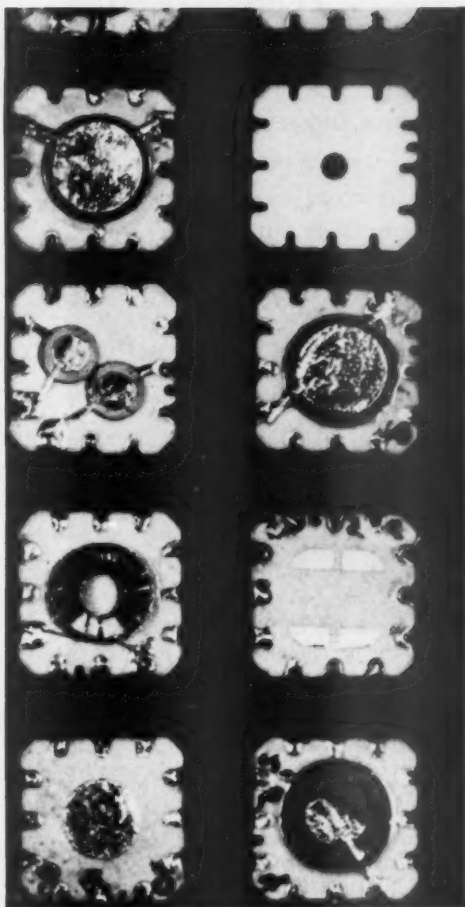
Electronics Plant: the Longest Step



1 Automatic machine shapes ceramic material into wafers that are hardened by heat. The ceramic is a good insulator.



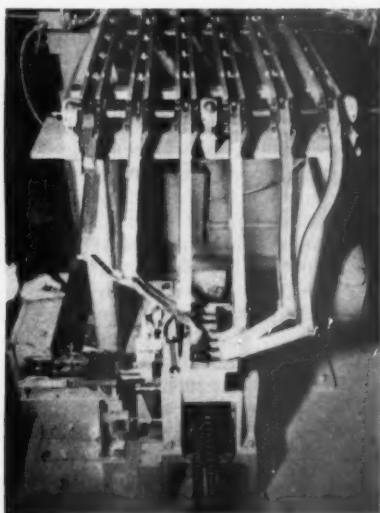
2 Parts of circuit are glued or printed on the wafers, then inspected by machine. Sorting machines (upper left) vibrate wafers into correct order, line them up, and send them on, one at a time, to the assembly machines.



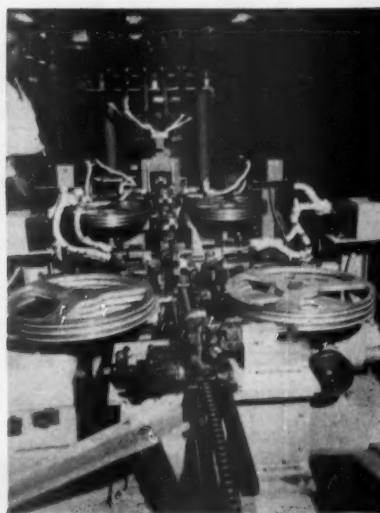
The completed set (right) shows simplicity of components. It foreshadows the . . .

Yet for Automation

(Story continues on page 74)



3 Five conveyors carry wafers to stacking device, drop them on top of each other in the correct order for final assembly.



4 Each stack of circuit-bearing wafers is hooked up by wires from these reels. Wires are soldered simultaneously.



5 Each of these modular units takes the place of part of the jungle of wires and gadgets that are in conventional assemblies.



**Long Life Sealing...
For Any Packing Application**

Quaker

SHEET PACKING

Packing that stays put! That's Quaker super-tough sheet packing. It stands up to vibration and pressure; resists deterioration by steam, gas, vapors, acids; stays pliable... and expands where it should. For low cost, long service and trouble free operation, re-pack with Quaker.

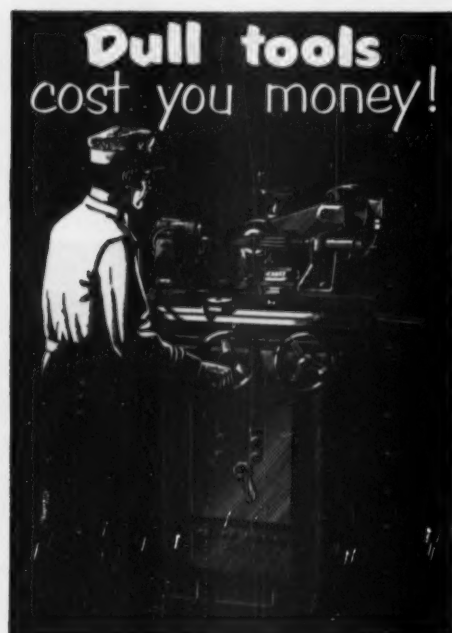
Write for name of nearest distributor.

Belting, Hose, Packing and Moulded Rubber of every construction for every need



QUAKER RUBBER CORPORATION
DIVISION OF H. K. PORTER COMPANY, INC.
OF PITTSBURGH

PHILADELPHIA 24, PA.
Branches in Principal Cities



GRAND RAPIDS GRINDERS

GALLMEYER & LIVINGSTON CO.
310 Straight Ave., Grand Rapids, Mich.

MANUFACTURERS OF SURFACE GRINDERS, CUTTER AND TOOL GRINDERS, TAP AND DRILL GRINDERS.

The sharpness and efficiency of your production tools materially affect your production costs — and profits. Because they meet these exacting requirements, Grand Rapids Universal Cutter and Tool Grinders have won industrial acceptance the world over. Models No. 10 and No. 12 are available for delivery upon short notice. Larger Hydraulic Feed Universal and Tool Grinders are available for later delivery. Ask for complete specifications and data on the capacity of interest to you.



**"... Project Tinkertoy
proves a robot factory can
make electronics equipment
—at a big price..."**

AUTOMATION starts on p. 72

In Arlington, Va., a suburb of Washington, D.C., a small factory is automatically making electronic assemblies, virtually untouched by human hands (pictures, pages 72, 73). The significance of this achievement is out of all proportion to the size of the factory.

The manufacturing process for an electronic set is one of the hardest to make automatic. The set is made up of many bits and pieces; the design keeps changing; and the manufacturer usually buys most of his components rather than making them. Automation of this kind of manufacture and assembly is far tougher than automation of, say, a steel rolling mill or a chemical process.

It took the U. S. government to provide the development funds involved in the Arlington plant. In little more than three years, the project has run up a bill of \$4.7-million.

• Military Pressure—The Arlington project has just been unveiled, after years of secrecy while it bore the code name Project Tinkertoy. The project, sponsored by the Navy's Bureau of Aeronautics, was chiefly developed by the National Bureau of Standards.

Under pressure of military strategy, defense planners can afford to buy the idea of automation at any price. That's especially true if they see a chance of succeeding with an automatic process for electronic gear. Modern warfare demands more gadgets, and more complex gadgets.

• Cutting Lead Time—The amount and complexity of electronic stuff in a present-day warplane are serious enough in themselves. It's hard to make the gadgets as fast as the planes they're being installed in. During the Korean buildup, many jet fighters sat idly on the manufacturer's ramps, waiting for electronic units to arrive.

Project Tinkertoy aims two ways at eliminating the electronics bottleneck:

• It radically changes the design of the equipment. Out goes the maze of wiring, with the connections that have to be individually made by hand. In comes a modular design—groups of components like electronic building blocks—that can be made and assembled automatically.

• It speeds up the output beyond anything that could be done through pep talks or incentives to workers. The small shop in Arlington, Va., is rated to produce 1,000 modular subassemblies every hour. Depending on human



When rust is kept out of the gutters...

Eagle-Picher zinc for galvanizing is doing the protective job. It serves in the manufacture of steel gutters, elbows and downspouts for water drainage on buildings and homes.

Zinc galvanizing helps prevent rust by providing a coat that's weather-resistant and non-corrosive . . . and so adds years to the life of steel products. From gutters, elbows and downspouts to wire and

pails, zinc galvanizing offers dependable, low-cost protection against rust.

America's leading manufacturers of galvanized products prefer Eagle-Picher as the source for slab zinc. There may be a need for zinc and for Eagle-Picher's experience in your own operations. We'd be glad to talk it over. Write Eagle-Picher Zinc Sales Office, Miami, Oklahoma.

Since 1843

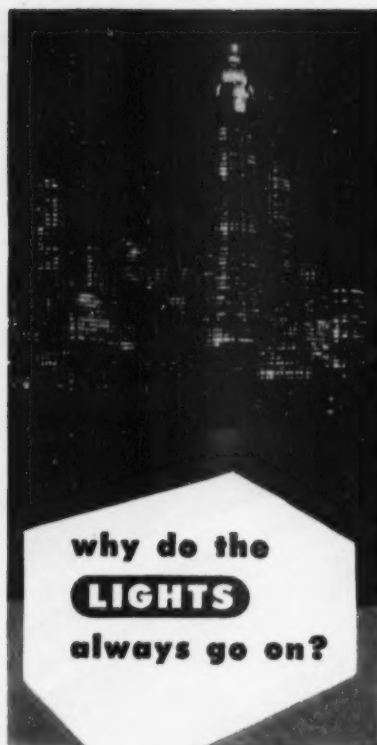


EAGLE-PICHER

The Eagle-Picher Company • General Offices: Cincinnati (1), Ohio

A good name on any product. Widely known as an important factor in mining, smelting and processing of lead and zinc, Eagle-Picher provides many products for essential uses in the steel, paint, glass, ceramic, chemical, storage battery, automotive and farm equipment industries.

Among these products are: Slab zinc • Lead and zinc pigments and oxides • Molded and extruded rubber products • Diatomaceous earth products • Cadmium • The rare metals: Gallium, Germanium • Mineral wool home and industrial insulations • Aluminum storm windows and screens.



● You flip a switch—lights go on. You expected that. The real reason they go on, however, is because power men *expect* generating equipment to fail. They work, then, to prevent failure. Their success in stopping failure **BEFORE** it happens is often due to inspection with methods by Magnaflux.

Inspection with Magnaflux* detects defects and makes invisible cracks visible. Low cost and non-destructive inspection methods by Magnaflux are used on nearly every material in most industries for all kinds of maintenance inspection.

Also used as a production tool, Magnaflux is helping hundreds of manufacturers make better products at lower cost.

All of the facts about Magnaflux are included in an interesting brochure "Seeing Isn't Always Believing." Copies are available on request.

*Magnaflux is a registered trademark of the Magnaflux Corporation.



MAGNAFLUX



MAGNAFLUX CORPORATION

7306 W. Lawrence Avenue, Chicago 31, Illinois
New York 36 • Pittsburgh 36 • Cleveland 15
Detroit 11 • Dallas 9 • Los Angeles 58

hands, you'd need a huge factory to equal that pace.

• **Next Step**—The technicians of Project Tinkertoy have met, head-on, one of the toughest problems in all industry. By licking the obstacles to automatic production of electronics equipment—whatever the cost—they have proved automation is practical for defense products. Next, they must convince industry that it's practical for commercial use, else Tinkertoy will be a one-shot affair.

Many people think the government will build the Tinkertoy-type plants at first, and lease them to private industry on a standby basis for defense needs.

• **Sales Resistance**—Electronics manufacturers aren't expected to embrace Tinkertoy production methods all at once. The speed of output is appealing, but not the terrific cost.

Investment-wise, electronics plants—especially those for radios and TV sets—have always been low-cost operations. They need hardly any costly equipment to give them a start in business. Their requirements are simply enough floor space, an assembly line of tables, and semiskilled girls armed with soldering irons. So a project such as Tinkertoy look staggering to cost-conscious firms.

What's more, the savings from any kind of automation might not be enough to pay quickly for the automatic equipment. A TV receiver maker, for example, is used to thinking in pennies. He's delighted if a product engineer develops a short cut that saves a few cents per set. That can make a real difference in his profit margin, but hardly dent the debt for an automated plant.

A limited kind of automation is expensive for an electronics maker. Motorola, Inc., announced a new way of plating the wiring of a small radio on a sheet of prestamped plastic (BW—Aug. 9'53,p56). Industry sources say that research for this one operation cost Motorola around \$1-million. And it will cost another \$1-million for an assembly plant. The method can cut costs dramatically, but only with a long production run of one model. Long-run models, such as the clock radio that sold 1.6-million units in 1952, are few and far between.

• **Teamwork**—Besides the dollar cost of automation in an industry such as electronics, there's a problem of coordination that brings government into the act.

Tinkertoy needed a lot of special skills—functions that few companies are equipped to perform all of. Tinkertoy operators had to:

- Design and build production facilities from scratch.
- Design and build much of the control equipment of a robot plant.
- Redesign the product to fit the automatic process.

• Learn to build all the components that are often bought by companies assembling electronic sets.

Automation enthusiasts feel there will eventually be companies that can offer robot engineering as a packaged service. Such companies may develop from the small specialists now in the field, or they may be formed by mergers of related firms.

Meanwhile, Project Tinkertoy requires this lineup:

• The Kaiser electronics division of Willys Motor Co., experienced in the ways of auto mass production, is operating the Arlington plant for the government.

• Doughnut Corp. of America, specialists in food processing equipment, designed some of Tinkertoy's tricky machines.

• Communication Measurement Laboratory, Inc., made most of the production testing machines.

• Sanders Associates, Inc., producer of small rate-gyroscopes, studied engineering applications of the process and products.

• **Radical Design**—The units that pour off the robot line of Tinkertoy don't look like anything you'll find inside your radio or TV set. Bureau of Standards technicians departed completely from the manual-operation design of the past 25 years. In Tinkertoy, both the making of components and their assembly are automatic.

Each tube of an electronics circuit is the heart of a modula—an electronic building block. It is mounted on a stack of ceramic wafers (pictures) that carry all the circuitry. The wafers are stacked like floors of a building, tied together by wiring that runs down the side of each stack.

Each production step—wafer-making, mounting of parts, stacking, and wiring—is carried out wholly by machines. The conveyor line is continuous. At every step, machines automatically inspect the product and reject the units that don't meet specifications. (The inspection machines work from punched cards that are changed whenever the product to be inspected changes.)

The number of modules in a set depends on the size of a circuit. Six modular stacks contain enough circuitry for a conventional table radio.

• **More Savings**—Production runs so far show that lead time for some equipment can be cut by as much as 75%—by eliminating the conventional bottlenecks. The production line could be switched to civilian products or back again to military stuff in about 24 hours.

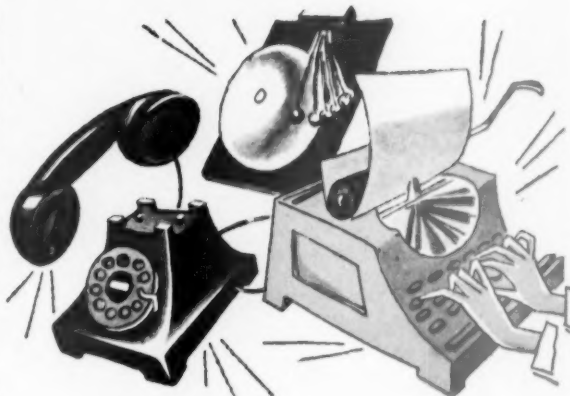
In service, the modular construction has advantages, too. If something goes wrong in a tube's circuit, the whole unit is pulled out and replaced—no hunting for the individual part that's defective.

Why Cushionlok* Acoustical Carpet is the best noise stopper you can buy!



Absorbs up to 90% of floor noise!

Acoustical tests prove that Bigelow Cushionlok carpet absorbs up to 90% of the nerve-racking noise caused by footsteps, falling objects, moving furniture, etc.



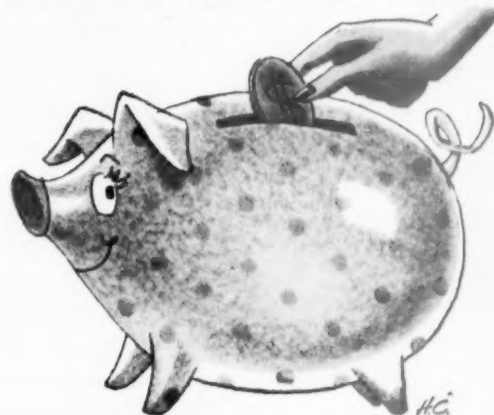
Deadens echoed sound, too!

This good-looking, long-wearing, all wool acoustical carpet absorbs *all kinds* of noise so effectively... often no further acoustical treatment is necessary.



Installed while business goes on!

Cushionlok can be installed quickly and easily. It requires no cushion lining—the rubber cushion is built in. It can be cut in any shape, pieced or relaid.



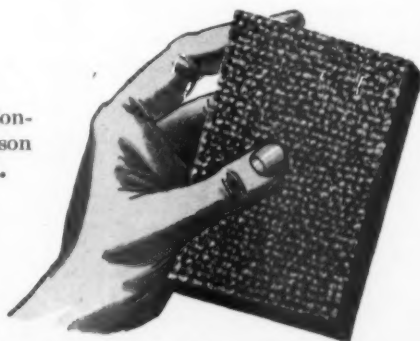
Cuts maintenance costs over 73%!

The average cost of maintaining hard-surface floor covering is about 60¢ per foot, per year as opposed to 16¢ per foot per year for Cushionlok. Quite a saving!

Send for sample

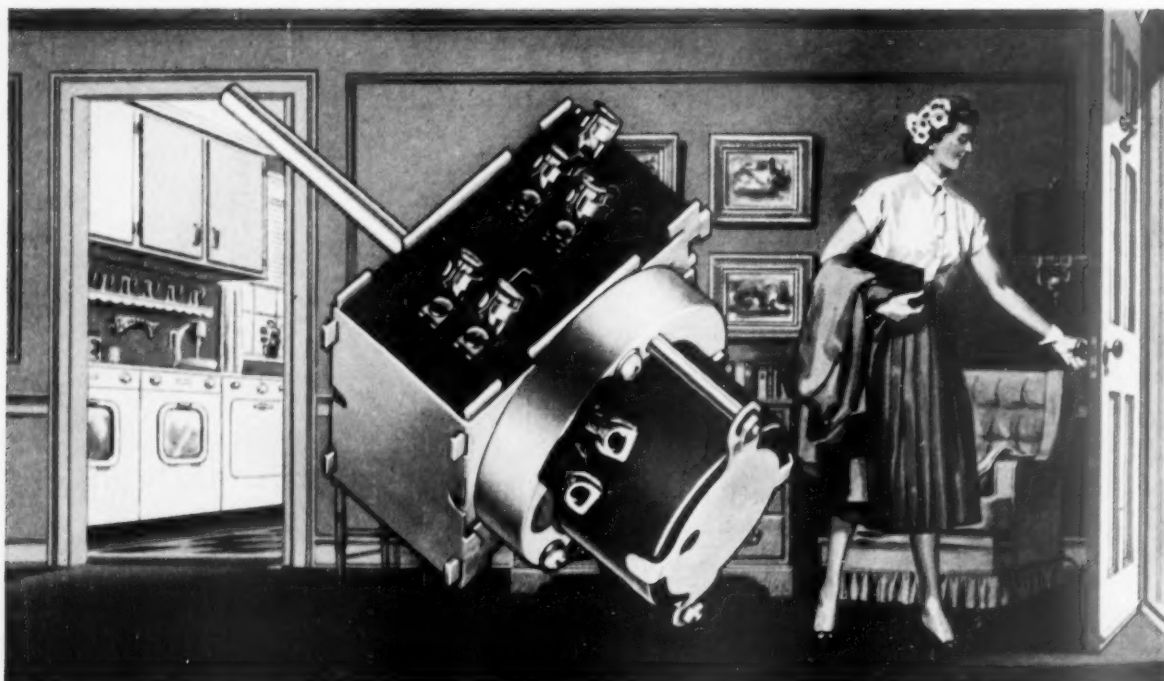
Write on your business stationery to Dept. A, 140 Madison Avenue, New York 16, N. Y.

*Reg. U. S. Pat. Off.



Bigelow Cushionlok Carpet

For Better Acoustics



Picture of the Smartest Helper a Housewife Ever Had...

THE problem of how to free the housewife from tiring, time-consuming chores in laundry and kitchen hinged for a long time on development of a device to control automatic washers, dryers and dishwashers.

Mallory came up with a timer switch smart enough... small enough... and tough enough to mastermind the operation of automatic appliances and give the housewife time for other things in and out of the house.

There is masterminding aplenty in millions of homes today as the Mallory Timer Switch turns water on and off... activates spinners, agitators or fans... regulates heat in drying units—all on a precise, predetermined schedule.

The Mallory product line-up is full of family "helpers". To mention a few: the vibrator power supply in car radios... vital parts in TV sets... TV tuners, including the Mallory UHF Converter... contacts in thermostats and everywhere else that electrical circuits must be made and broken.

In the fields of electronics, electrochemistry and metallurgy, manufacturers count on Mallory precision components and specialized knowledge to hold down costs... solve problems... develop designs... improve products.

MALLORY

SERVING INDUSTRY WITH THESE PRODUCTS:

Electromechanical • Resistors, Switches, Television Tuners, Vibrators

Electrochemical • Capacitors, Rectifiers, Mercury Batteries

Metallurgical • Contacts, Special Metals and Ceramics, Welding Materials

P. R. MALLORY & CO., Inc. INDIANAPOLIS 6, INDIANA



SETTING UP machine tools from three continents in a Brooklyn warehouse, to be available for actual demonstration under power in the world's first . . .

Machine Tool Supermart

An impressive array of nearly 1,000 machine tools from seven countries went on display this week in a converted factory in the Bay Ridge section of Brooklyn. It's called, by its sponsors, the world's first permanent machine tool exhibit.

The permanent show may be part of the answer to the problem of how to attract buyers for machine tools as the current boom tapers off. That's something that has been bothering tool-makers lately, particularly the smaller ones who are not members of the Machine Tool Builders Assn.

Carting elephant-size machine tools around the country to exhibit them can be very costly. And the available power supply is not always adequate for the customer to test the tool and see it at its best. If a customer is interested in a size different from the one shown, he has to order it from a catalog or brochure.

• **Variety**—The exhibit is planned so that a buyer can examine and test a variety of brands and styles at one

centralized location. On the opening day, a buyer could find a wide range of lathes from four different countries, many distinct types and sizes of grinding machines, 22 different drill presses, any number of boring and milling machines. By comparing them under actual working conditions, he can choose the equipment that best fits his needs.

Several independent American manufacturers have their full lines on display. But a good part of the show comes from Italy, Germany, Japan, Switzerland, and Great Britain. About 200 of the machine tools now on display have never been shown in this country. Bringing all these new tools to a centralized location can also eliminate a lot of travel for a buyer.

• **How It Happened**—The permanent show is the brain child of Simon Strybnik, president of S&S Machinery Co., Brooklyn importers and tool rebuilders. It was originally conceived as a means of displaying tools handled by his own company but the base broadened as the

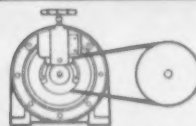


REEVES

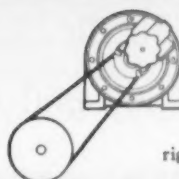
Flexi-Speed Drive!

Controlled From Any Position

Speed control handwheel may be located in 8 positions perpendicular or parallel to motor shaft.



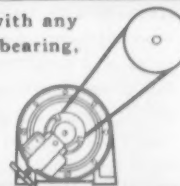
Drives In Any Direction



360° around motor shaft. Ideal for driving to in-line or right angle reducers.

8:1 Speed Range

May be used with any standard ball-bearing, foot-mounted motor of ½, ¾ or 1 hp.



Low Cost



This versatile variable speed drive assures maximum production, efficiency and economy from your machines. Write today for details. Specify Dept. 95b.

REEVES PULLEY COMPANY • COLUMBUS, IND.

REEVES
Variable Speed Drives

AUTOMATIC ELECTRIC— A GREAT NAME IN COMMUNICATIONS





company-wide P-A-X
keeps down communication costs

convenient P-A-X
keeps employees
at their desks



fast P-A-X service
keeps customers



you can measure **P-A-X** savings
in money and man-hours

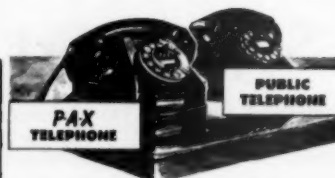
You'll save dollars every day with a P-A-X Business Telephone System—*enough* dollars to pay for this automatic "inside" telephone system within a few years' time.

You'll save delays, errors, fatigue, because company-wide telephone service steps up work flow, accuracy, and employees' enthusiasm, and conserves energy for everyone!

You'll save customers—an inside telephone system clears outside switchboards for customer calls . . . and usually *all* customer service is improved.

Your company will save with P-A-X—*just as thousands of organizations are doing today!*

Case studies demonstrating P-A-X application have been prepared in cooperation with typical P-A-X equipped organizations. Learn about the efficiency and economy you can enjoy with this separate *inside* telephone service! Simply call or write Automatic Electric Sales Corporation (HAYmarket 1-4300), 1033 West Van Buren Street, Chicago 7, Illinois.



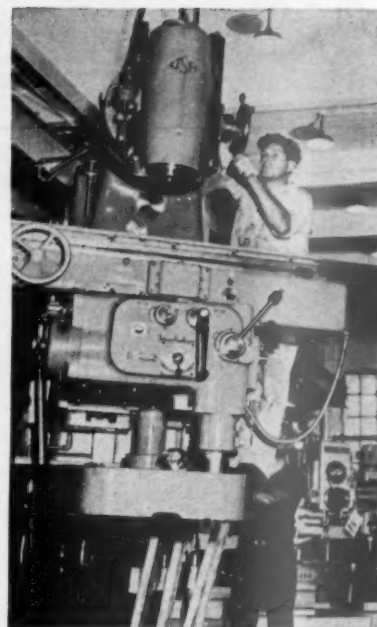
PAX is a system of "inside" telephones, separate from the public telephones, and owned by the user.

PAX is completely automatic and establishes all "inside" calls, within seconds, at any time!

PAX saves on public telephones and switchboard—permits marked economies in rented equipment.

PAX is manufactured by the originator of the automatic telephone.

PAX telephones and switchboards are identical in quality with your public telephone equipment.



A GIANT EXHIBIT at the machine tool show is this new Italian milling machine—one of 200 new tools on display.

time for the show neared. An industry committee, headed by Paul Volyn of Portland Machine Tool Works, is now the sponsor.

Space in the exhibit is open to any tool manufacturer who complies with the regulations and whose products meet the standards of the sponsoring committee. So far it has been most popular with European tool manufacturers anxious to introduce new products to the Western Hemisphere.

• **Specials**—Featured at the opening is an extensive demonstration of the Polygon Grinder, which was developed in Germany during the war. It produces polygon shapes that can eliminate splines or keyways in many applications. Curtiss-Wright Corp. is one of the first American companies to use it. And its use on just one part in jet engine production is reported to have saved that company over two man-years of production time.

Also on display are some dinosaur-size Italian boring mills, a new American low-cost contour grinder, a new Swiss automatic screw machine, a modern punch press from Chicago, an automatic electrocycle turret lathe from Bologna, an openside hydraulic grinder from Germany, and a new line of rotary gang slitters from England.

The show runs the gamut of machine tools, taking in production, fabricating, and toolroom equipment. New machines, innovations to make old machines more efficient, new techniques and methods of operation—all are demonstrated by skilled technicians and sales engineers.



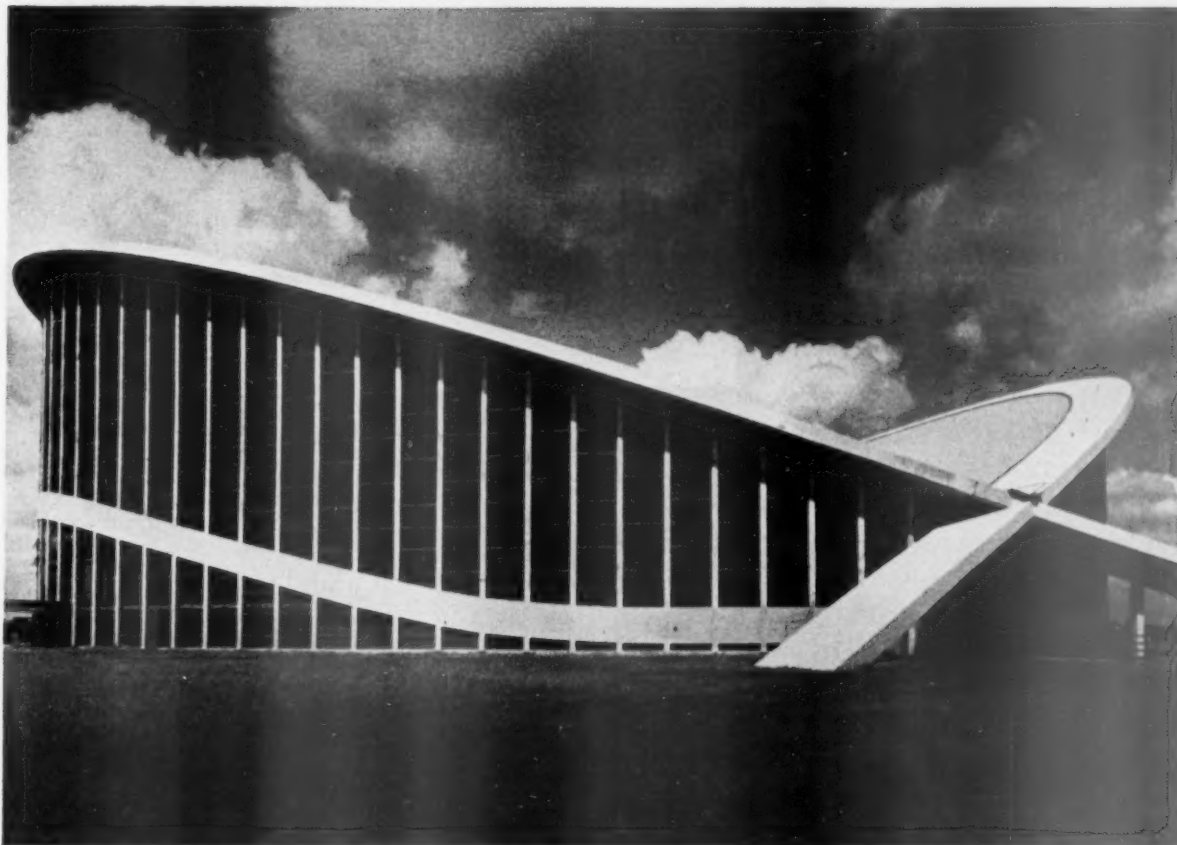
Please send me more information:

Name _____

Firm _____

Address _____

City _____ State _____



State Fair Arena, Raleigh, N. C. Wm. Henley Deitrick was the architect; Matthew Nowicki, consultant; Severud, Elstad & Krueger, consulting engineers; Wm. Muirhead Construction Co., general contractor. Arena owned by State Fair Division, North Carolina Department of Agriculture.

State Fair Arena at Raleigh, N. C., Wins Architectural Honors

Here is a structure that architects consider among the most unusual buildings of our time. It is the new arena at the State Fair Grounds, Raleigh, N. C.

This steel-and-concrete showplace is a bold departure from conventional design. It measures about 300 feet wide by 300 feet long, with an inverted-V abutment at each end. From these abutments the sides flare upward and outward, rising to a height of almost 90 feet at midpoint.

In recognition of its striking and original architecture, the pavilion has been awarded the Engineering Gold Medal of the Architectural League of New York, and an Honor Award for outstanding architectural design by the American Institute of Architects.

One of the most interesting features of the building is its gently curved roof,

supported entirely by Bethlehem steel cables. These cables, zinc-coated for resistance to corrosion, form a criss-cross pattern of 6-ft by 6-ft squares, and are securely anchored to the framework of the structure and fastened together at points of intersection. Bolt-clipped to the cables are corrugated metal sheets which, with the topping, constitute a roof unusually light in weight.

This ingenious application of steel bridge cable—a member of Bethlehem's wire rope family—made feasible a sturdy roof that blends perfectly with the clean, sweeping lines of the walls. It has already aroused widespread interest and may very possibly suggest a new trend in design and construction.



How the overhead network of strong steel cables looked during construction work.

BETHLEHEM STEEL





"one of the most marvelous heating systems ever seen"...

Statement by
Mr. H. G. Youngblood, General
Superintendent, Birmingham
Transit Company, Birmingham,
Alabama.

Warm air outlets are located in →
the side walls of the four service pits used
by mechanics.



← A combination warm air
radiant floor and forced warm
air installation.

JANITROL GAS UNIT HEATERS...selected for remodeled bus garage because of 12 years' earlier trouble-free experience

• Nine Janitrol Unit Heaters installed in 1936 gave such economical, trouble-free service that twelve years later, when a second building was remodeled, Janitrol was again specified. Here with the huge doors opening and closing for servicing of vehicles and outside temperatures falling as low as 5°, Janitrol Unit Heaters faithfully maintain comfortable conditions for

mechanics on the floor and in the pits. The same installation keeps the second-floor offices warm without extra heat supply.

Mr. Youngblood said that the Janitrol installation has definitely reduced absenteeism due to colds.

Here, again, is an outstanding example of Janitrol's durable performance under rugged operating conditions.

Whether building, remodeling or modernizing, it will pay you to look into the *plus* features of gas* heat with Janitrol. For full details about unit heater performance and best installation practices, write today for "The Business Man's Blue Book of Better Heating".

*If you're located beyond the gas mains, you can enjoy the advantages of Janitrol with LP Gas.



Janitrol Gas-Fired
UNIT HEATERS

SURFACE COMBUSTION CORPORATION • TOLEDO 1, OHIO

Also makers of Surface Industrial Furnaces • Kathabar Humidity Conditioning

PRODUCTION BRIEFS

Another study of atomic power has been started by two firms in private industry: Duquesne Light Co., a utility serving the Pittsburgh area, and Walter Kidde Nuclear Laboratories, Inc., Garden City, N. Y., have Atomic Energy Commission's O. K. to research the engineering and economic angles of making electricity from atomic energy.

• A catalytic cracking unit, the world's largest, has been turned on by Texas City Refining, Inc. It will have a daily capacity of 19,000 bbl. after its shakedown run. Its products: high-octane gasoline and domestic furnace oil. Houdry Process Corp., and Kaiser Engineers, a division of Henry J. Kaiser Co., handled the design and construction.

• Industrial television is headed for another record year (BW—May 30 '53, p41). Sales for 1953, says Electronics magazine, a McGraw-Hill publication, might reach \$6-million, a tenfold increase over last year. Manufacturers are hard-pressed, though, to find applications that are really new, despite price reductions in equipment.

• The Flying Crane, the big jet-powered cargo helicopter of Hughes Aircraft Co., has gone into a stall, development-wise. The Air Force canceled Hughes' contract because of "budgetary considerations." Presumably, the Air Force has also dropped the development of XII-28, a top-secret successor to the Flying Crane.

• Inland Steel Co. has tapped Construction Aggregates Corp., Chicago, for the job of dredging Steep Rock Lake (Ontario), which covers Inland's iron ore deposits there. CAC will remove 160-million cu. yd. of silt and water, a dredging equivalent to that of the Panama Canal, so that Inland can sink its mine.

• A turboprop model of the Convair-Liner 340 has been ordered by the Air Force from Consolidated Vultee Aircraft Corp. The first to go into operational service, this version has greater speeds and carrying capacity than the piston-engine Convair, but avoids the costliness of operating a straight turbojet on short runs.

• Diverse products are not for Libbey-Owens-Ford Glass Co. The firm has sold its Plaskon division, a manufacturer of plastic resins since 1940, to Allied Chemical & Dye Corp., will stick to fields in glass, its major product.



SLAM BANG

**TRANSIT TREATMENT PROVES TOUGHNESS
OF SYLVANIA CELLOPHANE**

Cannon Mills, like most manufacturers of quality products, are extremely particular about the packaging materials they use. After testing various ones for packaging their fitted sheets, flat sheets and bedspreads, they chose Sylvania Cellophane 600 MS-3 . . . a cellophane that provides an extra durable, transparent wrap. It stands up well under temperature changes and frequent handling.

In addition to laboratory tests, Cannon made case shipments of sheets wrapped in Sylvania Cellophane 600 MS-3 from their mills at Kannapolis, North Carolina to New York City and return. Despite rough treatment, all of the Sylvania-wrapped

packages reached Kannapolis in as good condition as when they left.

In addition to having a tough base, Sylvania 600 MS-3 has a coating which permits an extra-strong heat seal. It may be easily imprinted and contributes a smart look of distinctive beauty to both large and small items.

If you have a packaging problem which you think might be solved through the use of Sylvania Cellophane, why not get in touch with your local Sylvania representative, or write our Market Development Department, Sylvania Division, American Viscose Corporation, 1617 Pennsylvania Blvd., Philadelphia 3, Pa.



SYLVANIA CELLOPHANE



SYLVANIA DIVISION, AMERICAN VISCOSE CORPORATION

Now

is the time to plan

Christmas

for your employees

Making Employee Benefit plans available to your employees is one of the finest things you can do for them and their families at Christmas time.

You don't have to have a large number of employees to provide Insurance Benefit plans for your people, and with the assistance offered by The Travelers, the procedure is simple.

The Travelers has been specializing in Employee Benefit plans for over a quarter of a century and can design a plan to fit your particular requirements, including one or more

of the following forms of insurance:

Employee Life, Salary Allotment, Hospitalization or Group Life, Group Hospitalization, Group Surgical and Group Accident and Sickness Insurance.

October is a good time to start setting up a plan so it will be ready for you to announce to your employees at Christmas.

Why not take the first step now? Phone your Travelers agent or broker and ask him to talk with you about plans for your employees' Christmas. His name and address will be furnished upon request.



YOU WILL BE WELL SERVED BY

*The
Travelers*

HARTFORD 15, CONNECTICUT

SPECIALIZING IN EMPLOYEE BENEFIT PLANS FOR OVER A QUARTER OF A CENTURY

NEW PRODUCTS



Pipe Insulator

A new material is being introduced by American Gilsonite Co. for insulating and protecting hot underground pipes from corrosion. It's Gilsulate, a solidified form of petroleum found only in the Uintah Basin of Eastern Utah. The men in the picture above are placing it around the pipes.

American Gilsonite claims the new product is easier and cheaper to install than any other hot underground insulating substance. It won't deteriorate because it's a natural substance, which has been in the ground for millions of years. It's said to assure permanent protection against such common corrosion factors as alkaline ground waters, electrolysis, root attacks, and bacterial action.

• **Layers**—When you pour the specially sized Gilsulate around hot pipes, it forms into three layers. Material in contact with the pipe melts and fuses. It forms a dense, semiplastic coating but lets the pipe expand and contract. It acts as a thermal and electrical insulator.

The middle layer becomes sintered or resolidified when tamped in place, and the outer zone remains unconsolidated. The outer layers provide insulation and a high load-bearing capacity.

• **Advantages**—Tests conducted by the Southwest Research Institute and University of Utah show that heat loss from pipes insulated with Gilsulate is 8% to 11% of the loss that occurs from bare buried pipes. This high insulating efficiency means that hot and cold lines may be buried in the same ditch, as well as lines carrying steam of different temperatures.

In contrast to present practices, Gilsulate does not require sleeves or sheaths to protect the insulation. The stuff is



How many times has some one come up with a really good idea only to have it squelched because of extra costs?

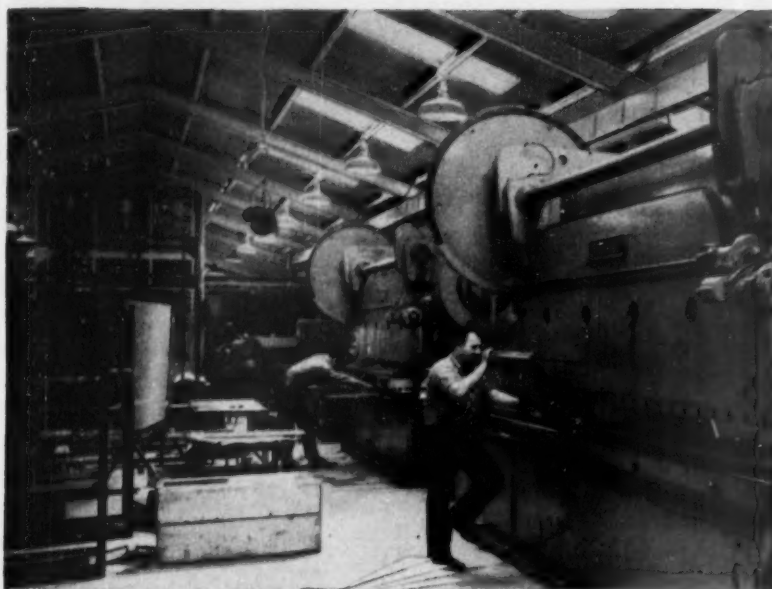
If the problem involves a tubular part, Wolverine can often shed light on the subject with a practical, down-to-earth suggestion as to how the part can be fabricated and still be in line.

It's happened many, many times before. A manufacturer has been stumped by a problem of assembling two or more pieces of tubing, or of closing one end, or bending, or coiling, and so on. Wolverine, in turn, has simplified the operation, making it efficient and practical as far as costs are concerned.

Just consider Wolverine's Customer Engineering Service as a part of your own organization. And write today for a copy of the Wolverine book—"Fabricated Tubular Parts." It's yours without obligation.

WOLVERINE TUBE DIVISION of Calumet & Hecla, Inc., producers of tubing and tubular products of copper, copper-base alloy, aluminum and electric-welded steel. 1469 Central Avenue, Detroit, Michigan.—Plants in Detroit, Michigan and Decatur, Alabama.





"Production is up 20% with same manpower in our new **BUTLER** building!"

says S. W. Soos, Jr.

"The same personnel is producing 20 per cent more in our new 108' x 216' Butler steel building. This is a dollars and cents measure of the difference between it and a larger four-story building we formerly occupied," says Mr. Soos.

"There is less waste motion now that everything is right here on one floor. Post-free Butler construction also lets us place machines and materials for the most efficient work flow. Our employees appreciate the soft, natural light from the Lite*Panels, and the overall convenience of our new layout. Yet, the square-foot cost of our Butler steel building was considerably less than the cost of many common types of construction! Ease of expansion lets us add new space economically, too. We're adding another 36' x 216' section.

"Our modern, new plant also has increased customer confidence and created new business. When folks see us in our Butler building, they know we're in business to stay!"

Learn how you can make your building dollars do more with a Butler building to fit *your* needs. Write the Butler office nearest you for more facts and the name of your Butler dealer today!



Mr. Soos is president
of Lake Shore Electric,
Inc., Bedford, Ohio.



BUTLER MANUFACTURING COMPANY

7313 East 13th Street, Kansas City 26, Missouri
913A Sixth Avenue, S.E., Minneapolis 14, Minnesota
1013 Avenue W, Ensley, Birmingham 8, Alabama
Dept. 13A, Richmond, California

Manufacturers of Oil Equipment • Steel Buildings • Farm Equipment • Cleaners Equipment • Special Products
Factories located at Kansas City, Mo. • Galesburg, Ill. • Richmond, Calif. • Birmingham, Ala. • Minneapolis, Minn.

just emptied into the ditch. Rocks need not be removed from the backfill to avoid puncturing the insulation, and there is no need for complex concrete ducts around the pipes. When required, repairs or changes to the pipe line can be made quickly by removing the backfill and chipping off the Gilsulate structure.

• Source: American Gilsonite Co., 248 S. Main St., Salt Lake City 1, Utah.

Making Finishes Set Fast

A new way to make paints, varnishes, and inks set in minutes instead of hours or days was demonstrated last week by Armour Research Foundation and Meyercord Co., Chicago decalcomania manufacturer. It's a chemical hardening process.

Here's how it works: You coat an object in the usual way with a brush, spray, roller, or dip. Then you put it in a chamber and subject it to sulfur dichloride vapor for a predetermined time—a matter of minutes. When removed from the chamber, the coating is set enough for handling, packing, or use.

• **Limits**—Called Chem-Dry, the process works for coatings based on alkyd resins, urea formaldehyde, melamine formaldehyde, drying oils, and similar materials. It doesn't work with lacquers or other coatings that dry by solvent evaporation only. It's expected to find uses in putting finishes on wood, printing or coating paper and fabrics, decorating metal, and coating wire.

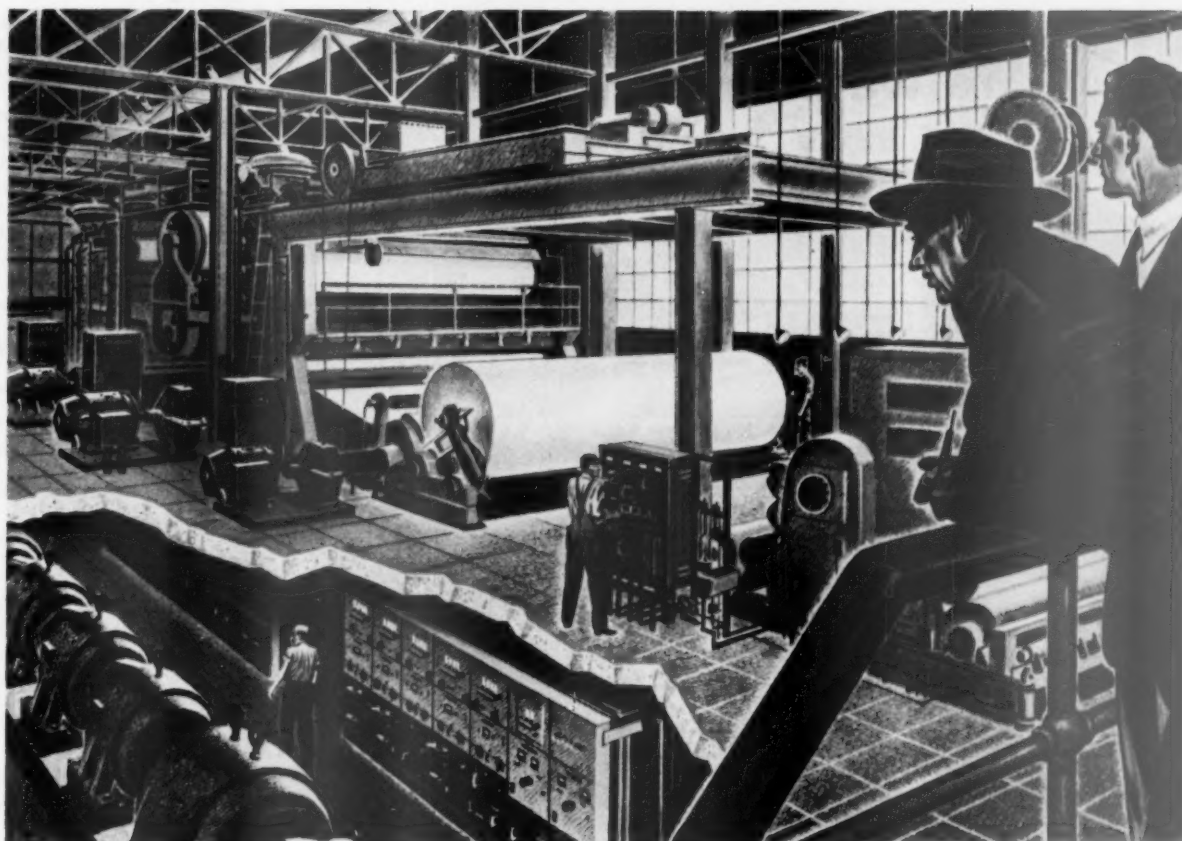
• Source: Meyercord Co., 5323 W. Lake St., Chicago, Ill.



Corner Painter

The block-like device above is known as a Tite-Spot Painter. It's designed to provide a roller finish on hard-to-get-at surfaces that a roller can't reach.

Tite-Spot has a replaceable 3-in. by



Wide Speed Range...

WITH HAIRLINE ACCURACY

means profits in paper... or in your production picture

The paper industry affords just one example of the results which Reliance skill in application engineering and equipment design is accomplishing in all industries. For instance, on papermaking machines having up to 17 sections, each with its individual motor, the Reliance V*S System provides speeds up to 2500 feet per minute, adjustable over ranges of 10 to 1, or more, with better than 1/2 of 1% accuracy.

With profit margins in today's highly competitive markets tied directly to rate, continuity and quality of output, profit-minded management is turn-

ing more and more to Reliance for help in solving its toughest drive problems.

For your application, too! As the user or the builder of machinery, you may have a problem that can be solved by a specially engineered drive or by one of the many rugged Reliance industrial-duty motors. Whichever your situation, Reliance is ready to help you. A call to your nearby Reliance Sales Office... or a letter to us direct... will place at your disposal almost half a century of Reliance specialized engineering experience in the application of electric drives.

A-1468-A



RELIANCE ELECTRIC AND ENGINEERING CO.

1069 Ivanhoe Road, Cleveland 10, Ohio • Sales Representatives in Principal Cities



MOTORS • GEARMOTORS • ADJUSTABLE-SPEED DRIVES • MOTOR-GENERATOR SETS • ELECTRONIC AND MAGNETIC CONTROLS AND REGULATORS

Are we passing up
this way to save?



The Research Institute of America, in a copyrighted report on management methods, calls attention to the fact that more and more companies are studying the use of duplicators to make worthwhile savings. Later on the report says:—

"Stencil duplication, an old and widely-known method, is used almost universally for house organs, bulletin board announcements, work order details, etc. If you haven't checked the newer models though, you may be surprised at the innovations introduced since you acquired yours."

If you would like a complete copy of the above report—like to have full information about the new product (and process) developments of MODERN mimeographing that save time and money, simply mail the coupon below. A. B. Dick® mimeograph products are for use with all makes of suitable stencil duplicating products.



A·B·DICK

THE FIRST NAME IN DUPLICATING

A. B. DICK COMPANY
5700 TOLUEN AVENUE, CHICAGO 31, ILLINOIS

BW-1053

Without obligation please send me information about MODERN mimeographing.

Name _____ Position _____

Organization _____

Address _____

City _____ State _____

5-in. pad with a woven wool surface like that on rollers. There's a plastic knifelike edge that allows you to use the block against another surface to make a straight line without smearing.

With this blade edge removed, the Painter has an opposite "rollover" edge for painting in the corners of walls, cabinets, shelving, and step risers. An extension handle fits onto the Painter to let you reach into cramped areas behind radiators and pipes.

• Source: McBell Enterprises, Inc., 3309 Douglas Ave., Racine, Wis.

• Price: \$1.19, replacement pads, 49¢.

NEW PRODUCTS BRIEFS

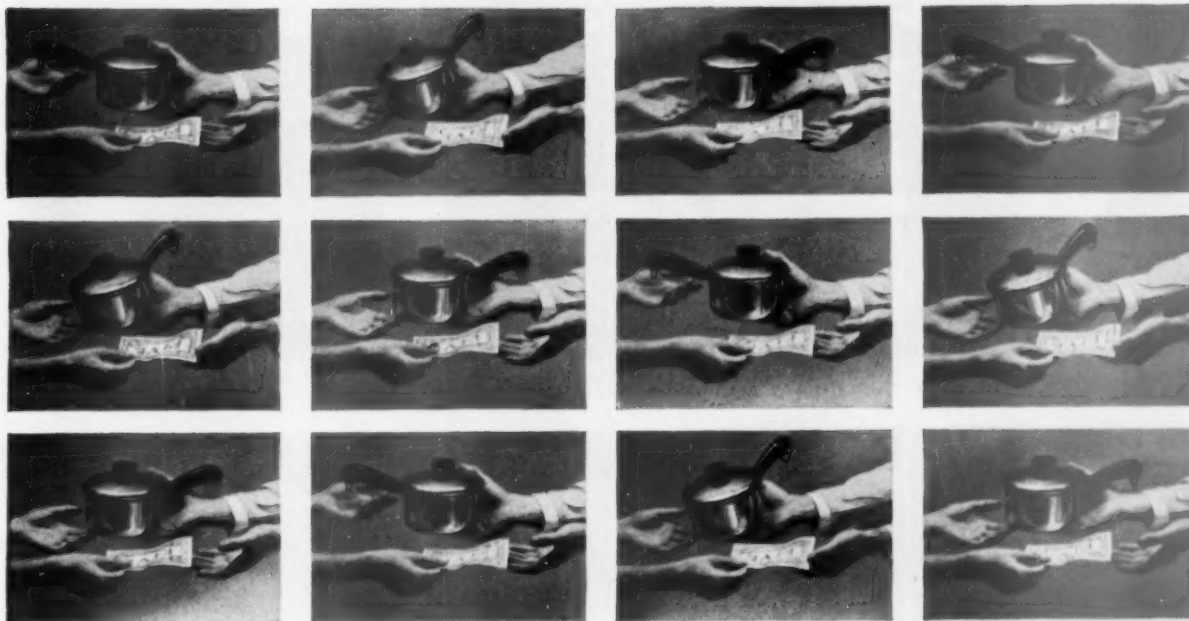
A textile loom that starts and stops with great precision whenever desired is being introduced by Borden Mills, Inc., of Kingsport, Tenn., and Hunt Loom & Machine Works, Inc., of Greenville, S. C. Use of nylon gears and oil-impregnated bushings reduces the possibility of getting oil and grease on the cloth. Localized humidity control is said to make possible working conditions of 62% relative humidity at 80F.

Automatic fade-in and fade-out of pictures is a feature of a new 35-mm. slide projector announced by Revere Camera Co., 320 E. 21st St., Chicago, Ill. The device that does away with the "saw-buck" effect of most projectors is a narrow metal drum that holds the slides and revolves them backward and forward to the lens.

A putty-like plastic sealant, designed to keep water from seeping into passenger cars, has been announced by B. F. Goodrich Chemical Co. It adheres to bare metal and is cured during the normal baking of the car's enamel. Ford Motor Co. is using the new plastic on assembly-line production.

A portable X-ray unit, designed especially for school dental examination programs, has been announced by Oralix Division of North American Philips Co., Mount Vernon, N. Y. It weighs 62 lb., can be carried in a passenger automobile, operates from any standard 115 volt a.c. outlet.

Grind-O-Flex is a new light grinding tool that attaches to any rotating spindle. It consists of hundreds of individual abrasive cloth leaves sealed to a hard core. As the flexible wheel rotates it presents a continuous abrasive surface to remove flaws from contours in metal parts without danger of digging into the stock. Manufacturer is Merit Products, Inc., 4023 Irving Place, Culver City, Calif.



WHAT MAKES A SALES LEADER?



When a product is exchanged for dollars time after time, that makes a sales leader. It is no coincidence that products made of *stainless steel* are sales leaders in so many different fields.

Armco Stainless says *value* to the consumer—and *means it!* Here's why:

1. This lustrous modern steel is highly attractive in itself, gives your product sales appeal that is unsurpassed by any metal.
2. Its gleaming beauty is permanent. There's no plating or surface finish to chip or wear off. It's solid, rustless all the way through.
3. Armco Stainless is durable. Being stronger and tougher

than most metals, it is not easily dented or "banged up."

4. Its hard smooth surface is easy to clean and keep clean.
5. Armco Stainless is versatile—not only rustless but heat-resistant too. It's as salesworthy in cooking utensils as in sporting goods or any other products.
6. Finally, Armco Stainless is made by the world's largest producer of special-purpose steel's. It carries a trademark which has been nationally advertised for thirty-nine years. It comes in sheets, strip, plates, bars and wire—in a grade and finish for every requirement.

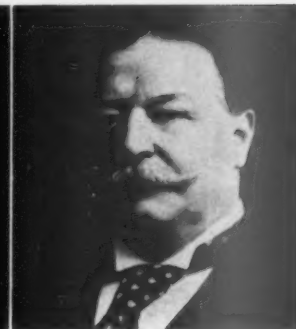
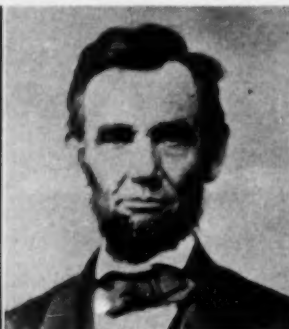
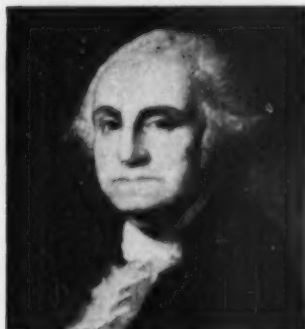
In these days, when sales leadership is hard to come by, harder to keep, why not get all the facts on Armco Stainless Steel for your product?

ARMCO STEEL CORPORATION

MIDDLETOWN, OHIO • EXPORT: THE ARMCO INTERNATIONAL CORPORATION



GOVERNMENT



Washington . . . Whiskey Lincoln . . . Weapons Theo. Roosevelt . . . Meat Taft . . . Labor



Hoover . . . Prohibition F.D.R. . . . Social Security Now Eisenhower is finding . . .

Commissions Do a Lot of Things

Presidents since Washington have used commissions to solve ticklish problems; Eisenhower now has them at work on issues from foreign policy to airport laws.

The Eisenhower Administration has already been tagged as "government by commission." It's easy to see why. Six commissions are already in full operation. Four more are getting started—each responsible for chiseling out policy on sensitive and controversial issues.

- The Randall Commission had its second meeting this week, to shape up a foreign trade policy.

- A new Hoover Commission went to work on eight ideas for reducing the size of government—with federal power and lending agencies high on the list.

- The Manion Commission met in the White House last week and began its job of selecting federal functions the states might handle.

- The Cole Commission on housing policy got started—spurred on by a slump in housing starts and by criticism from Democratic senators that its 21 members are weighted against low-rent projects.

- **Still Behind**—But that total—10 Presidential commissions appointed in seven

months—doesn't put Eisenhower anywhere near the top of the list of Presidents using this device.

True, he's starting at a pace that would soon put him ahead of his predecessor, Harry S. Truman. Truman used only 20 major advisory commissions in his seven years in office.

Franklin D. Roosevelt, though, rang up a hundred or more in his first eight years in office—the peacetime years. And Herbert Hoover appointed more than 60 in his first 16 months as President. He went right on using them, too. Hoover's "sins of commission" became a prime political issue by 1932.

Each 20th-century U.S. President has leaned heavily on temporary commissions whenever, in his opinion, the ordinary processes of policy forming and legislation bogged down.

- **Aims**—The Eisenhower commissions are distinguished by the gravity of the issues entrusted to them. Their broad and sweeping assignments could well—if legislation results—give the country

and the Republican Party a new look.

You see the unique Eisenhower touch in the way he has asked most of his major commissions to report to Congress—not to the President alone. Truman and F.D.R. used them to advise the President directly—often as a means of prodding Congress along some path they already had marked out. Eisenhower stresses commissions that have at least some Congressional members. Truman and F.D.R. liked them better loaded with private citizens.

The Eisenhower commissions are not pioneering new ideas, or aiming at new and experimental legislation, as those of his Democratic predecessors often did. Instead, they reveal his strong interest in making peace within the Republican Party on one hand, and reducing the size of the government on the other. Of his 10 commissions, seven are for these purposes.

I. The Peacemakers

The idea of using commissions to weld widely separated points of view into a rounded policy apparently has more appeal to Eisenhower than to any President in the past. Political scientists and experts in government operations

"We cut heating costs at least 15% with PC Glass Blocks"

says **R. L. Kaufman**, *Asst. to President*
J. B. Kaufman Realty Company

At the Kaufman Building in Long Island City they recently replaced all the steel sash with PC Glass Blocks. Here's why:

The sash used to warp and bulge out as much as 4 inches. Heating costs were very high. Glass breakage was a constant problem—and the thousands of small panes just couldn't be kept clean except at prohibitive cost.

What a difference now! According to Mr. Kaufman, "The PC Glass Blocks have eliminated all our window troubles. Because of the lower painting, cleaning and replacement costs, we figure the glass blocks will eventually pay for themselves. What's more, we'll save at least 15% on heating costs.

"Our tenants have nothing but praise for the glass blocks. They report better daylighting and less dirt than ever before."

PC Glass Blocks can save money and improve daylighting for you. Get all the facts about a PC window modernization program for your building. Mail the coupon today.



AFTER

This outstanding window modernization job was done by W. J. Soutop, Inc., Bayside, L. I., N. Y.



BEFORE

Here's what you get with PC Glass Blocks

BETTER DAYLIGHTING—Functional patterns direct daylight to reflective ceiling, or distribute it uniformly throughout the room. More light, less glare.

REDUCED HEATING & COOLING COSTS—Glass block panels have insulating efficiency of a solid 8-inch masonry wall.

LOWER WINDOW MAINTENANCE COSTS—Glass block panels seldom have to be washed. Breakage is rare. There is nothing to paint.

NO "EXTRA" EXPENSES—Unlike conventional windows, panels of PC Functional Glass Blocks seldom if ever need expensive shades, blinds or louvers.

NO DIRT INFILTRATION—A glass block panel is an integral part of your building wall. Tight mortar joints seal out moisture, dirt.

LESS OUTSIDE NOISE—PC Glass Blocks are hollow. Dead air spaces reduce sound transmission.

Pittsburgh Corning Corporation

PITTSBURGH 22, PA.

Pittsburgh Corning Corporation
One Gateway Center
Dept. G-10103, Pittsburgh 22, Pa.

Please send me your FREE file on window modernization with PC Glass Blocks.

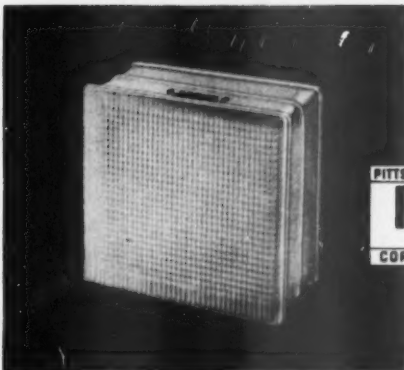
- ☐ Send engineer to discuss specific problem.
☐ Advise nearest source of supply.

Name Title

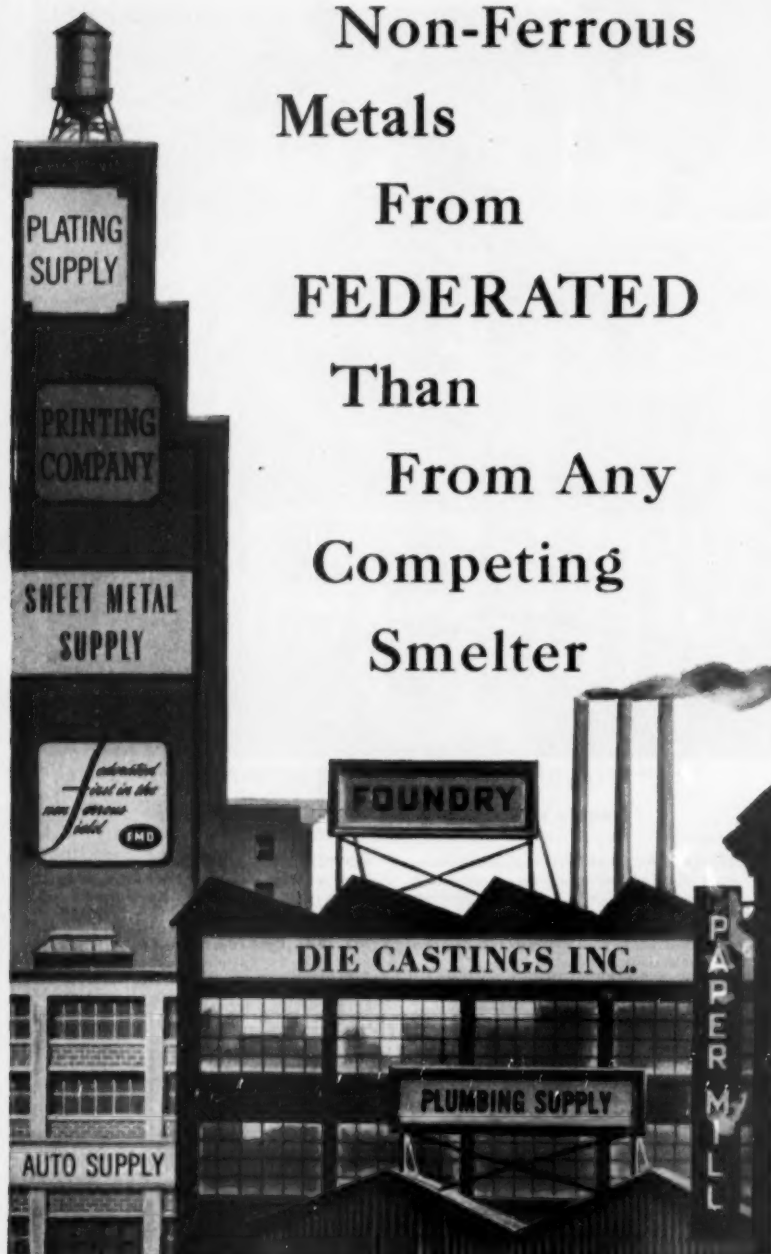
Firm

Address

City Zone State



More
Customers
Buy More
Non-Ferrous
Metals
From
FEDERATED
Than
From Any
Competing
Smelter



Federated Metals Division, American Smelting and Refining Company
120 Broadway, New York 5, N. Y.

Plants in: Beckmeyer, Ill. • Denver, Colo. • Detroit, Mich. • Houston, Tex. • Los Angeles, Calif. • Newark, N. J.
Perth Amboy, N. J. • Philadelphia, Pa. • Pittsburgh, Pa. • Sand Springs, Okla. • San Francisco, Calif.
St. Louis, Mo. • Trenton, N. J. • Whiting, Ind. (Chicago)

In Canada: Federated Metals Canada, Ltd., Toronto, Montreal

don't like the idea, as a rule. They say most such commissions wind up just where they started—still at odds.

The low-water mark was the Wickersham Commission, which looked into prohibition for President Hoover. It came out with 11 different opinions.

William Howard Taft took a flier at a peacemaking commission, on union-management relations. But in authorizing it, the Senate insisted on the right of confirming the President's appointees, then turned down his choices. When Woodrow Wilson took office after the 1912 election, he won confirmation for a nine-man group. It eventually turned in a report that merely spelled out the still conflicting views of labor and management.

Eisenhower is trying the peacemaker approach in three fields.

Foreign trade is most important. The commission headed by Clarence Randall, Chicago steel maker, contains a wide range of views, from arch-protectionist Republican members of Congress to more-trade advocates like Randall himself. Eisenhower's hope for this commission is clear enough. Out of his seven appointees, six lean to the side of more trade.

The commission's assignment is to bring together facts already available in government agencies, shape them into a policy recommendation.

Housing is another field in which Eisenhower's commission is wrestling with a split in Republican thinking. Its chairman is Albert M. Cole, Administrator of the Housing & Home Finance Agency. As a congressman, Cole opposed public housing projects. But other Republicans, led by the late Sen. Robert A. Taft, sponsored them.

The Cole Commission was told by Eisenhower to "identify the proper role of the government in this field." It's being organized around a five-man executive committee, with W. Herbert Welch as executive director. Its goal is a complete housing program.

Agricultural policy splits Republicans, too. One group is opposed to the present system of high price supports—with Agriculture Secretary Ezra T. Benson as spokesman. Another group, led by farm state Republican congressmen, wants to keep high supports.

On Eisenhower's advisory commission of 15 persons, there's a mixture of food processors, scholars, and farmers. This is apparently to be a permanent group. Its immediate goal is to help Eisenhower and Benson work out policy changes to be submitted to Congress in January.

II. The Reorganizers

Harry Truman appointed the most famous commission in recent U. S. history and the one that did the biggest



Enough heat to scorch an ordinary motor winding

When sudden high heat sears ordinary motor windings too often, the electrical insulation gives out . . . the windings short-circuit and production stops.

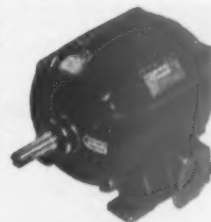
This damaging heat is caused on many motor applications by unexpected, high load demands. Such peak loads in your plant can produce gradual insulation decay in ordinary motors or cause rapid, destructive burnouts.

Life-Line* motors lick this problem with Westinghouse insulation. First, the Life-Line motor coils are wound with copper wire specially protected by a tightly bonded coating of synthetic resin enamel. Second, the completely wound stators are given multiple dips and bakes in thermoset varnish. This whole process develops a tough, yet flexible, heat-cured insulation that will not soften or become brittle as a result of peak motor operation.

It's another example of the way operating and maintenance costs are lowered by major improvements in motor design and performance pioneered by Westinghouse.

*Trade-Mark

Life-Line

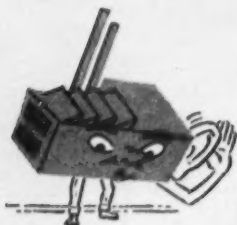


YOU CAN BE SURE...IF IT'S
Westinghouse



J-21723

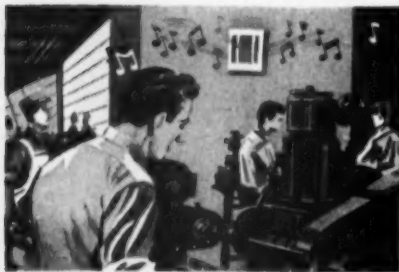
INFRA-RED PHOTO OF MOTOR WINDING WHOSE
INSULATION HAS BROKEN DOWN DUE TO OVERHEATING



IS YOUR BUSINESS *Hard of Hearing?*

If your office, factory or warehouse efficiency is somewhat below par—and you can't put your finger on the exact cause—maybe Better Communication is the answer.

Your Stromberg-Carlson Sound Systems dealer is an expert in helping Business find people faster, control production more efficiently, speed orders, reduce mistakes and boost employee morale by broadcast announcements and music. He'll gladly survey your needs, for FREE, and tell you how and where properly engineered Sound can benefit you.



Music to Whole Plant



Production Control to Factory



Sales Dept. to Shipping



Executive to Executive



Management to Workers

STROMBERG-CARLSON

Makers of famous XY dial equipment—telephones
—television—radio—carillons and sound systems.

Send Coupon
for a Free
Survey

Your representative is welcome to look over our premises and tell us, without obligation on our part, how Sound and Inter-Communication will increase efficiency here.

STROMBERG-CARLSON
SOUND DIVISION
1202 Clifford Ave. Rochester 3, N. Y.

FIRM.....

ADDRESS.....

CITY.....

SIGNED.....

job—the first Hoover Commission on Organization of the Government. Scholars have called it the most penetrating study ever made of the mechanics of government. About 75% of its ideas was finally written into law—all aimed at more efficient management of the government's business. Estimates of how much it is saving the government vary all the way from \$2.5-billion a year (by its ardent supporters), down to \$40-million.

But the first Hoover Commission sidestepped such boiling issues as government activity in the fields of electric power and finance, or the business operations of the military services, which range from coffee roasting to rope making.

• **Diving Deeper**—To dive into these problems, Eisenhower asked Congress for a second Hoover Commission—and Congress gave a quick yes, without debate. The new commission elected Hoover its chairman, named former Rep. John Hollister of Ohio executive director, and blocked out eight subjects for close study.

In addition to power and lending agencies, these include: personnel, which means a look at civil service rules that keep Truman holdovers in key jobs; medical services, which means reviving controversy over rights of veterans to free medical service; independent government agencies, which means trying to reduce the number of persons reporting directly to the President; accounting and budgeting procedures; feeding services in government institutions; and disposal of surplus property.

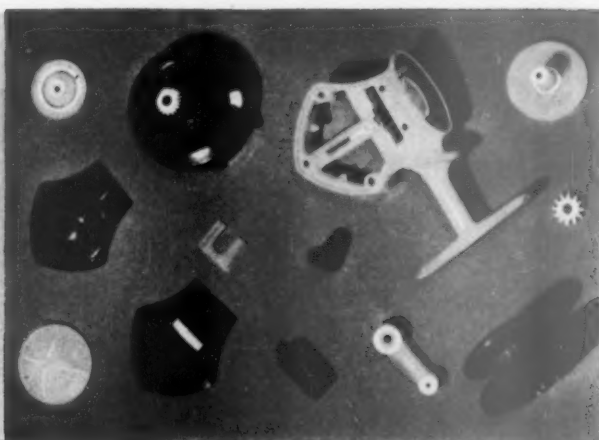
The new commission can recommend abolishing government services—which makes it Eisenhower's No. 1 hope for reducing the size of government.

• **State vs. Federal**—The Manion Commission—headed by Dean Clarence E. Manion of Notre Dame Law School—deals with government organization, too, but from a different slant. It's working on the idea that the present system of grants-in-aid to states for purposes like highways, health, and social security could be greatly reduced by simply returning various tax sources to the states. Then the states would pay their own way, without reducing the new total of services.

The commission is particularly interested in getting the federal government to drop its 2¢ per gal. tax on gasoline and reduce some high excise taxes. Manion has until next March to report.

• **And Others**—Two minor Eisenhower commissions are at work on government organization. One coordinates national security operations under the leadership of Walter Bedell Smith, Under Secretary of State. This is composed entirely of government officials—a type of commission greatly loved by

Lightweight, corrosion-
resistant, self-lubricating
parts of DuPont nylon...



...make possible a
new and better
fishing reel

Why not investigate how this unique engineering material-DU PONT NYLON-can help improve your product?

Here is another example of how the unique properties of Du Pont nylon have helped a manufacturer produce an improved product.

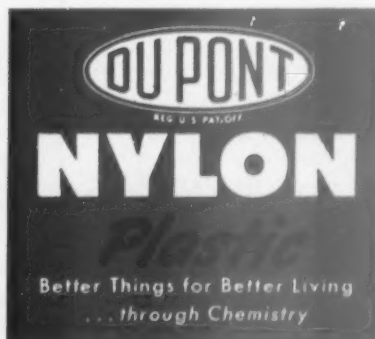
In developing a new spinning reel that would give good casting balance with today's featherweight rods, Waltco Products, Inc., sought a lightweight material that would also give long, dependable service.

They found their answer in Du Pont nylon plastic. The final design contains fifteen parts—almost the entire reel—molded of nylon. Since

Du Pont nylon is lightweight, the reel weighs less than four ounces, about the same as popular rods. Du Pont nylon is strong and durable, won't chip or crack, and is virtually unbreakable. Its excellent bearing characteristics and wear resistance provide long-lasting, smooth operation of the reel's moving parts without lubrication. And because nylon resists corrosive attack, even by salt water, the reel is self-cleaning. The manufacturer claims that the reel gives near-perfect rod and reel balance plus long life

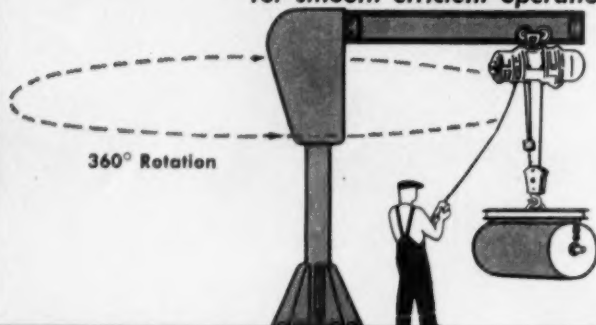
with little or no lubrication.

Perhaps these properties of Du Pont nylon can help your company produce a new or improved product. For further information, write: E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Dept., Room 3310 Du Pont Bldg., Wilmington 98, Delaware.



Industrial JIB CRANES

Precision engineered and built
for smooth efficient operation



Industrial PBM self-supported Jib Cranes are of all welded steel construction, rotate 360 degrees and have capacities up to 12,000 lbs. The rotating steel head revolves on 4 rollers and 9 precision ball bearings resulting in extremely smooth operation—unsurpassed by any other crane of its type. The high standard of workmanship and material, coupled with reliable performance make Industrial Jib Cranes your best buy.

Industrial manufactures 6 other types of Jibs and many models of Overhead Traveling Cranes to cover every need. Consult with Industrial for cranes to solve your material handling problems.

Write
for
Catalog

INDUSTRIAL CRANE & HOIST CORPORATION

(Formerly Industrial Equipment Co.)

337 NORTH ADA STREET

CHICAGO 7, ILLINOIS

Overhead Cranes • Jib Cranes • Monorail Systems • Crane Runways
Representatives in Principal Cities

The Prophet could have said:

**A MOUNTAIN
OF
NEW BUSINESS
Comes to YOU!**

**INTERNATIONAL
SOFT DRINK
INDUSTRY
EXPOSITION
CHICAGO
NOV. 9-12**

HERE'S an industrial show offering a rare opportunity for your company to contact, under one roof, the top management, as well as the production and marketing executives of the nation's Soft Drink Industry.

FOR 4 DAYS executives of the industry's 6,000 plants will be at Chicago's International Amphitheatre . . . eager to see, to compare, and to **BUY** the newest equipment, products and services.

200 SUPPLIERS whose products are already in use by soft drink bottlers will be there to claim their share of this expanding market. And a very profitable share it will be, too!

HOW ABOUT your firm? Here's an opportunity to diversify your market, or to adapt your product to new uses of this rapidly expanding billion dollar industry.

DECIDE TODAY to "prospect" this mountain of NEW business. Write for information about available exhibit space . . . or ask for complimentary admission credentials.

AMERICAN BOTTLERS OF CARBONATED BEVERAGES
1128 Sixteenth Street, Northwest • Washington 6, D. C.

F.D.R. Eisenhower looks on it as a device to get smoother operations inside the government.

Another Eisenhower commission is taking a look at legal procedure of the regulatory agencies. It is headed by Federal Judge E. Barrett Prettyman, and Attorney General Herbert Brownell is in charge of the staff work.

The goal of the new group is not major reform. It wants mostly to speed up hearings.

III. The Administrators

Most Presidents have avoided setting up temporary commissions that had any administrative duties. But Eisenhower established one of this type to try to prevent race discrimination by holders of government contracts. In this case, he avoided the Congressional approval route, setting the group up by executive order. Vice-President Nixon is chairman.

Eisenhower also kept alive the International Development Advisory Board, a group started by Truman to advise on technical assistance to foreign countries. Eisenhower's chairman is Eric Johnston. It does no direct administrative work, but advises on administrative as well as policy matters.

Even the strongest Presidents have avoided the administrative commission, probably as a result of Lincoln's experience in early Civil War days. He empowered a group of men in New York to spend \$2-million in U.S. funds for weapons and other war materials, dispatching instructions by secret routes in an aura of cloak and dagger conspiracy.

The \$2-million was spent swiftly, as Lincoln had hoped. It was not a formal commission and the whole transaction was illegal, as Lincoln admitted later when called to task by Congress. But he said he had to act that way because orders through regular channels would have been blocked by southern sympathizers. He said his act saved the government. Congress grumbled, but did not press the matter.

IV. The Fact-gatherers

Washington appointed the first fact-gathering commission. He sent a group into western Pennsylvania to find out what had caused the Whiskey Rebellion—in which Daniel Shaw and his followers refused to pay a tax on liquor. The commissioners reported back: No use trying to pacify the troublemakers short of shooting it out. Washington took their advice.

F.D.R. appointed one fact-finding commission that made history. Bernard Baruch headed a group studying rubber requirements in World War II, which led to building the 28 plants



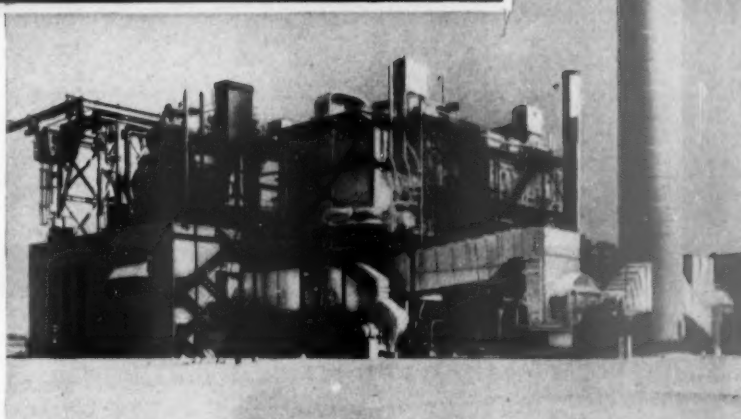
OUT OF NEW YORK goes a volume of shipping which makes routing ocean freight a problem. Ebasco has been engaged by a number of steamship lines to help solve this problem.

HOW EBASCO TEAMWORK HELPS BUSINESS AND INDUSTRY SOLVE SPECIAL PROBLEMS

Throughout the United States and in other countries around the world, Ebasco specialists—engineers, constructors and business consultants—are serving many different companies in many different fields.

Some of the services Ebasco offers are used by business and industry to handle projects such as those shown on this page. In turning such problems over to Ebasco, companies of all sizes, long established firms, as well as new businesses, find they obtain the extra manpower they need without adding to their permanent staff.

Perhaps Ebasco teamwork can serve you. Our booklet, "The Inside Story of Outside Help," describes the services we offer business and industry. May we send you a copy? Write or phone Ebasco Services Incorporated, Dept. C, Two Rector Street, New York 6, N. Y.



DOWN IN TEXAS, Ebasco was engaged to design and build the New Handley Steam Electric Station for Texas Electric Service Co. Located near Fort Worth, this modern plant provides economical electric power to a large part of the State.



TO CARACAS, Venezuela's beautiful capital, Ebasco specialists have gone to handle a space planning program for La Electricidad de Caracas. The program involved the planning and designing of a large office building and an ultra-modern service center.

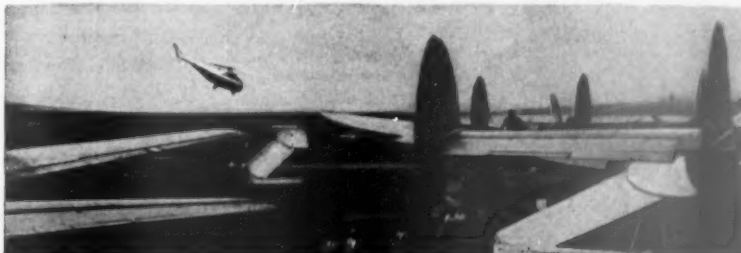


UP IN CANADA, Ebasco specialists prepared an industrial relations program for the Canadian Comstock Company Limited. This is one of many such programs prepared by Ebasco for companies in the United States and abroad.



NEW YORK • CHICAGO • WASHINGTON, D. C.

Appraisal • Budget • Business Studies • Consulting Engineering
Design & Construction • Financial • Industrial Relations
Inspection & Expediting • Insurance, Pensions and Safety
Purchasing • Rates & Pricing • Research • Sales & Public
Relations • Space Planning • Systems & Methods • Tax • Traffic
Washington Office



SUNNY CALIFORNIA lists aircraft manufacturing as one of its larger industries. One major company in this field used Ebasco consultants to help reduce and control costs, and to provide effective control and coordination of production schedules.

MOVE MOUNTAINS



OF PAPERWORK

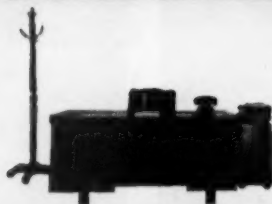


WITH

Permoflux

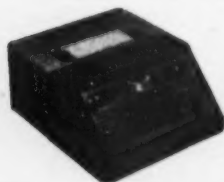


THE TAPE DICTATION MACHINE



HIGHEST OPERATING EFFICIENCY • LOWEST OPERATING COST

Learn how the SCRIBE dictating machine—with miracle magnetic tape—gives you unmatched operating efficiency and economy. **SEND FOR FREE BOOKLET**



\$329.50
Plus taxes and accessories

Scribe Corporation
2835 North Kedzie Avenue
Chicago 15, Illinois

SW-10

Gentlemen:
Please send free booklet on the Scribe dictation system, and how it will help us to streamline our paperwork procedures. (No obligation, of course.)

Name _____
Firm _____
Address _____
City _____ f) State _____

that shortly will be sold by the government to private operators—under the guidance of another commission, naturally.

Eisenhower has only one group of fact-finders, so far. This is the Air Coordination Committee, which is talking to local government and aviation industry experts. On the basis of what it finds about present aviation and airport laws, it will recommend policy changes.

V. The Idea Merchants

Teddy Roosevelt was the first U.S. President to use commissions to pioneer fresh ideas, to crystallize public opinion behind them, and then force them into law despite a reluctant Congress.

He sent a commission into the Chicago stockyards to investigate meat packers. He set up another to look into the mounting difficulties of farmers. He had one stirring up support for his conservation ideas, and another to work up a plan for inland waterways.

Like Eisenhower, he found himself at odds with powerful blocs within his own party. But unlike Eisenhower, he appointed his commissions without first getting Congressional approval.

Congress rebelled. When T.R. asked for \$50,000 for a conservation commission, Congress refused the money, and passed a law that it hoped would stop the appointment of further commissions, except those specifically authorized by Congress. The attempt failed, though it is still on the books as a warning to Presidents.

Hoover had one "idea commission" among the many he established—and ironically it turned out a document described by some as a "primer for the New Deal." This was his Commission on Social Trends.

F.D.R. used "idea commissions" to pioneer social security, federal power expansion, crop insurance, farm tenancy relief, and support for cooperatives.

Truman used one to lay the background for race discrimination legislation. He used another to try to force in the McCarran-Walter Immigration Act.

VI. The Tightrope Walkers

Democrats are already assailing Eisenhower's commission as a form of "government by postponement."

In the past, Presidents have sometimes used commissions to avoid taking a stand. And in some cases—notably the Wickersham study of prohibition—the nature of the report has resulted in a postponement.

It's too early yet to say whether any of Eisenhower's studies will end that way.

How MICRO switches help eyeglass lenses to "take it"

*American Optical Company's engineers
chose four MICRO switches to control
new precision heat-treating unit*

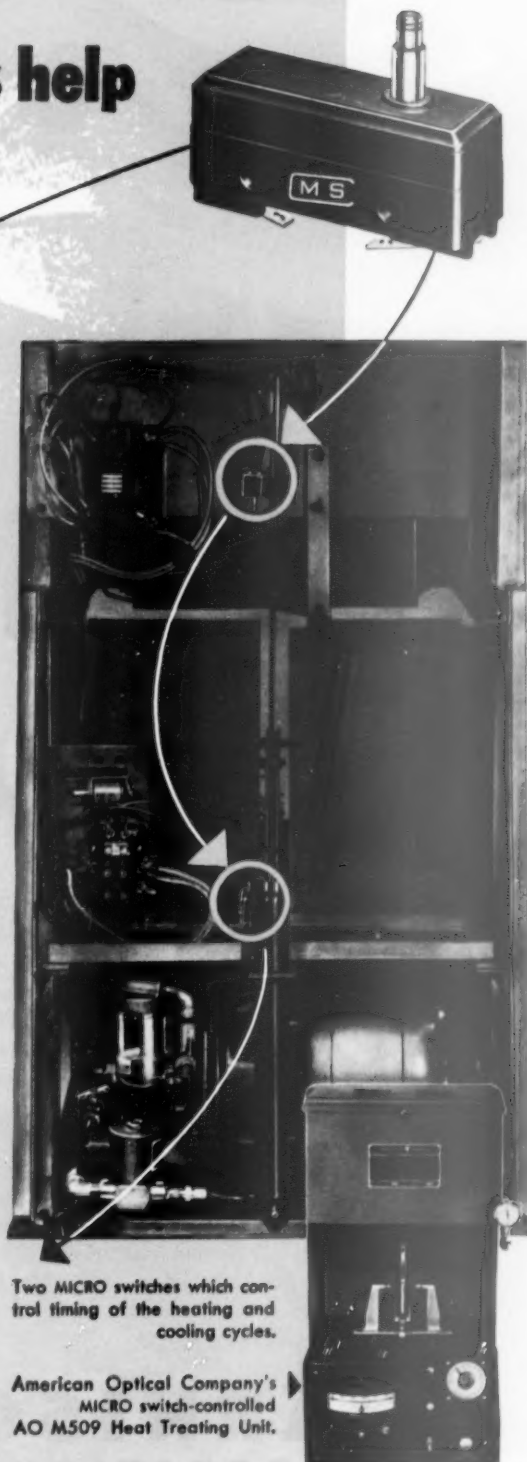
A toughening process that will enable ophthalmic and safety lenses to withstand far greater impact than untreated lenses has been developed by the engineers of American Optical Company. It makes use of precision techniques which require the utmost in sensitive, accurate controls.

MICRO switches were selected to control the timing of the heating and cooling cycles because of:

- Long-life characteristics.
- Low operating force.
- Sufficient electrical capacity to control the two solenoid valves and air pump motor.
- Dependability of performance.

Here again, MICRO switches have proved their worth as components of equipment where failure is intolerable. These heat-treating units must work day after day with minimum maintenance if production is to proceed smoothly in American Optical plants both in this country and abroad.

If you manufacture equipment which must not fail, let MICRO switch field engineers help you select from over 6000 types of switches the one switch best adapted to your product... the switch that will give you the utmost performance over a long life. Call or write the nearest MICRO branch office.



Two MICRO switches which control timing of the heating and cooling cycles.

American Optical Company's
MICRO switch-controlled
AO M509 Heat Treating Unit.

MICRO

MAKERS OF PRECISION SWITCHES

FREEPORT, ILLINOIS

A DIVISION OF
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY





a great hand to help you cut costs!

As you drive along the smooth ribbons of concrete — over the hills, through the valleys — do you ever think of the work it took to put them there? The cuts, the fills, the grades, mile after mile? That's the story of construction machinery — opening the hinterland for you — bringing a better standard of living wherever the highways lead. P&H Power Shovels are helping to build new roads faster, at lower cost, in almost every country of the world.

We've come a long way since P&H introduced the first gasoline-powered excavator. Constant improvement through nearly 40 years is behind today's modern P&H Power Shovels and Cranes. Faster-moving, easier-operating and stronger than ever, with all-welded construction, they're conditioned like a fighter — trimmed of excess weight to score higher in the battle against costs. If earth-moving is a factor in your business, let P&H give you a hand!

**HARNISCHFEGER
CORPORATION
MILWAUKEE 46, WISCONSIN**

the **P&H** *Line*



TRUCK CRANES

DIES



DIESEL ENGINES

POWER SHOVELS

PREFABRICATED HOMES

ELECTRIC HOISTS

SOIL STABILIZERS

WELDING EQUIPMENT

OVERHEAD CRANES



© GF Co. 1953

GF will double his MF*

*MORALE FACTOR

*Your executives and department heads deserve the prestige that goes with **GF's MODE-MAKER** desks*

It pays you worthwhile dividends when you seat your key men at handsome GF Mode-Maker desks. Their increased morale steps up their enthusiasm as well as their efficiency.

GF's Mode-Maker keeps its good looks for a lifetime. The cost, compared to any one of your men's salaries over a 10-year period, is insignificant—*far less than 1%*! That's a low-cost, big-return investment that appeals to all practical businessmen.

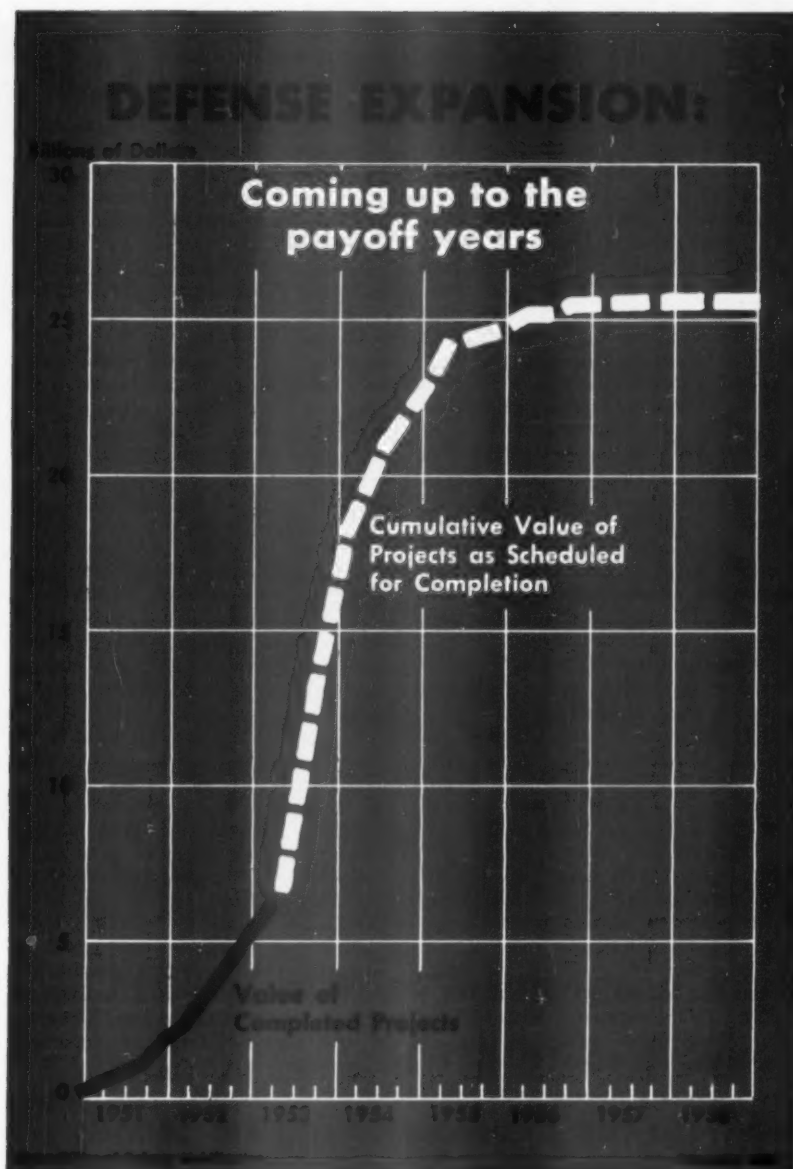
Mode-Maker is America's leading line of business desks. Choose from many models for private or general offices . . . they're *all* as efficient as they are good-looking.

Learn how your small investment in Mode-Maker desks for your employees will repay itself many times over. Call your nearest GF distributor or write The General Fireproofing Company, Dept. B-22, Youngstown 1, Ohio.



MODE-MAKER DESKS
GOODFORM ALUMINUM CHAIRS
METAL FILING EQUIPMENT
GF STEEL SHELVING

Good metal business furniture is a good investment



Building Up Industrial Muscle

Projects set up under the government's fast amortization program are beginning to reach completion with a rush. Within another year most of them will be operating.

This year and the early part of 1954 should be the big period for expansion of defense industries under the government's fast amortization program. The upsweep of the curve on the chart above shows how value of completed projects is scheduled to gain. In 1953 alone the value of completed facilities is supposed to jump \$12.5-billion.

Last week, the Office of Defense Mobilization reported progress on how the expansion schedules stand. Based

on the value of projects for which certificates of necessity were issued through Mar. 31, the expansion program should be 71% fulfilled by the end of 1953. The cumulative total of completed projects, 1950 through 1953, should stand then at \$18.2-billion.

The total of \$25.8-billion for projects approved through March will be enlarged, of course, as new certificates are issued. Last month, ODM announced addition of \$2.3-billion in



Clean, simple, fully automatic . . . that's Continumatic Inking!

Nothing like it in any other duplicator! Your operator merely clips a tube of paste ink in the machine, sets the ink-density selector, dials the number of copies desired, and the Gestetner does the rest—quickly, quietly, cleanly.

Cuts in half the cost of letters, forms, reports!

You'll be delighted at the number of jobs the Gestetner can take over, the money and time it can save. New electronic stenciling makes it possible to reproduce almost anything you wish . . . in any of a dozen attractive colors. Yet, with all its advantages, the Gestetner 260 costs no more than conventional equipment—why not get the details today? Use the handy coupon below.

Gestetner

PARTS AND SERVICE FROM COAST TO COAST

• • • • •
 Gestetner Duplicator Corp., Dept. 20
 50 McLean Ave., Yonkers 5, N. Y.
 For full details, actual duplicated samples and the name of your nearest distributor, fill in and mail the coupon below.

Name _____
 Company _____
 Address _____
 City, Zone, State _____

How really important is the



in your business life?

You've said it yourself many times: "Our business success depends on our customers — our Very Important Customers." But do your customers know how you feel about them?

More and more successful businessmen are looking to Shaw-Barton to help insure their customers' good will and continued patronage. How? Through proved advertising ideas and tools that maintain your company name and identity and build business friendships for years to come.

Right now businessmen are planning to show tangible appreciation of their customers by means of a Christmas "thank you."

Your Shaw-Barton representative can show you how to do this effectively with distinctive leather pieces from our exclusive line. Invite him in when he calls, or write us direct for free brochure illustrating newest business gift items in a wide range of prices.

Shaw-Barton

Calendar & Specialty Advertising
General Offices and Plant, Coshocton, Ohio

GERLINGER LIFT TRUCKS

HAVE
THE



There is plenty of power in a Gerlinger Lift Truck... easy, floating power to lift cumbersome loads into place—reserve power in the 100 HP Ford motor—tractive power to operate under all load and grade conditions. "Power Features" are built into every Gerlinger Lift Truck, from 4 to 9-ton capacities.

For complete details on Gerlinger's "Power Features," drop us a card today for your copy of Brochure G-165

GERLINGER CARRIER CO.
DALLAS, OREGON



G-215

projects since March. But the ratio of issuance of certificates is definitely slowing now (BW-Sep 5'53,p29), and not much more will be added from here on.

• **In the Works**—ODM admits that completions during first-quarter 1953 did not live up to previous forecasts. Officials regard this as a lingering effect of last year's steel strike. ODM is scheduling a sharp taper in completions after 1953. Next year, \$5.5-billion worth of expansion is scheduled for completion; in 1955, about \$1.2-billion; in 1956, only \$597-million; in 1957, less than \$200-million; and \$38.5-million after 1957 to round out the program.

• **The Figures**—Dollar figures are total cost of new or expanded facilities approved by the government for fast amortization. On the average, 61% of total valuation has been made eligible for tax benefits.

ODM estimates that only 30% of total dollar value goes into bricks and mortar. About 66% is spent for machinery and other equipment, and the remaining 4% goes for land and overhead.

• **Work in Place**—The ODM report also deals in detail with the cumulative value of work in place. These figures (table) are distinct from the statistics for work completed. They include value of projects at varying stages of incompleteness; when each project gets its last nail and dab of paint, it shifts to the "completed" column. That's the main reason for the huge gain in completions scheduled for 1953. A lot of projects started in prior years are paying off as completions.

The value of work put in place during first-quarter 1953 exceeded \$1.4-billion. ODM estimated that 67% of the \$25.8-billion value of projects was in place by June 30.

• **Comparative Gains**—The following table shows how various segments of industry have progressed.

In large-scale projects, the best progress has been shown by the railroads, the aircraft engine manufacturers, and the primary steel producers. On estimates for June 30, the railroads had put 88.5% of their \$3.2-billion expansion in place; aircraft engine makers had passed 82.5% of their \$527-million program; and steel companies had hit 81.6% of their authorized \$2.3-billion expansion.

• **Biggest Yet**—The tax amortization program carried on since the Korea outbreak is already far ahead of similar programs that were set up during the two World Wars. In 1917-18, the program covered \$650-million of new facilities; in 1941-45, it covered \$6-billion.

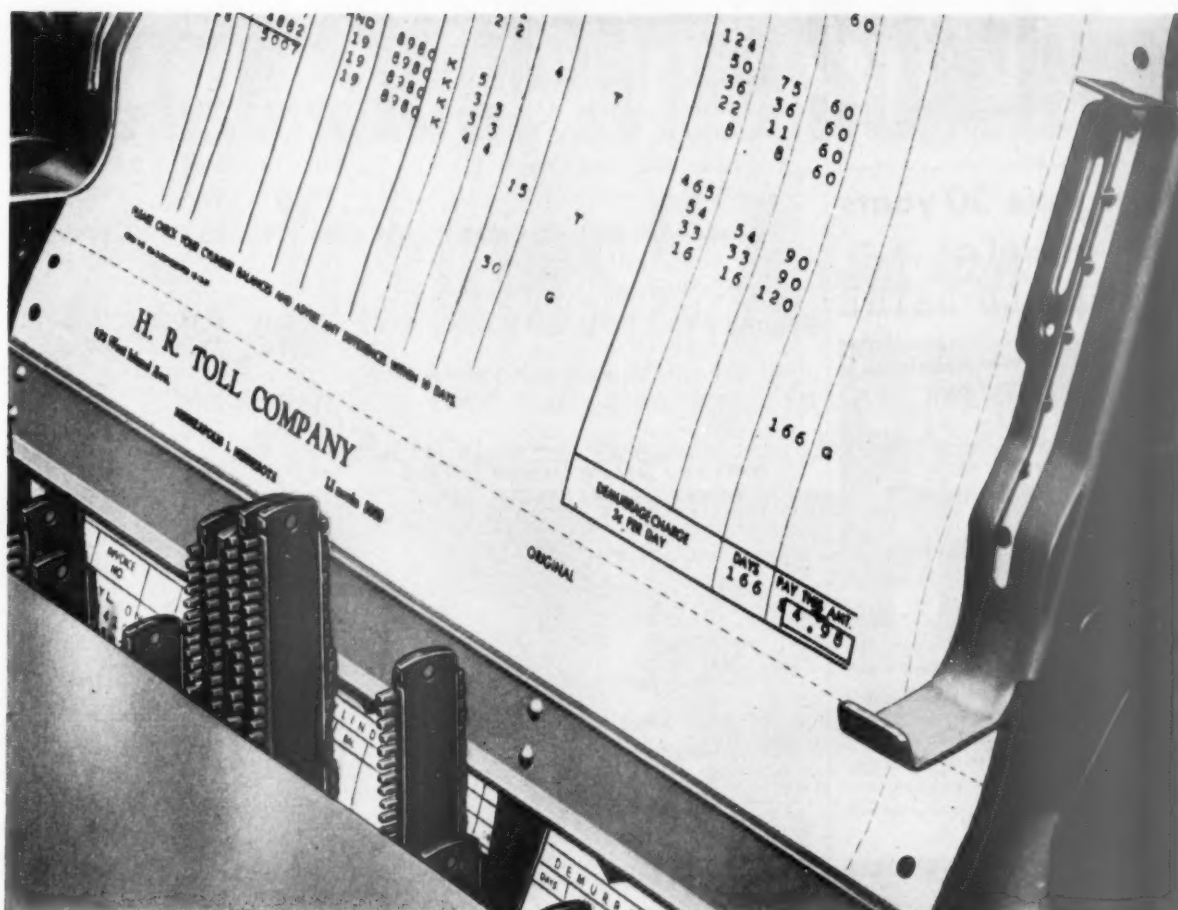
There's no basis for comparison with the earlier programs, however. The incentive program since Korea has been much broader than those of the previous wars. World War I and World War II stimulus was pinpointed on munitions makers; the Korea expansion has given benefits to defense-supporting and essential civilian industries as well.

• **A Trend?**—This broadening of tax incentives may prove to be part of a trend. Congress talks more and more of setting up fast amortization as a permanent government stimulant for all types of industrial expansion. Just before Congress adjourned, Sen. Homer Capehart (R., Ind.) introduced a bill along these lines.

Next year, when Congress gets down to serious revision of the tax laws, you can expect a permanent fast-writeoff plan to win a lot of support. Especially if any sign of industrial depression shows up.

Where the Expansion Program Stands

Type of Industry	Total Cost	Percent Finished	Date of Scheduled Completion
Total—All Industries	25,788,145	67.3	1960
Manufacturing Industries—Total	14,400,541	67.5	1957
Primary Metal Industries—Total.....	5,134,064	67.6	1956
Steel Works and Rolling Mills.....	2,368,414	81.6	1954
Primary Refining of Aluminum.....	842,727	58.0	1956
Blast Furnaces.....	761,681	43.3	1955
Electrometallurgical Products.....	244,943	69.4	1955
Welded and Heavy Riveted Pipe.....	206,859	85.1	1954
Iron and Steel Foundries.....	102,426	86.1	1954
Other.....	607,014	47.0	1956
Chemicals and Allied Products—			
Total.....	3,025,691	62.6	1956
Industrial Inorganic Chemicals.....	869,579	55.6	1956
Industrial Organic Chemicals.....	636,295	60.8	1955
Alkalies and Chlorine.....	314,237	82.1	1954
Plastics Materials.....	273,601	44.5	1956
Synthetic Fibers.....	251,872	75.2	1954



This IDEA from Remington Rand... got rid of overtime for H. R. Toll

Here's how vital reports — printed at 6,000 lines per hour — cut bookkeeping work to a minimum and eliminate overtime for a Minneapolis distributor.

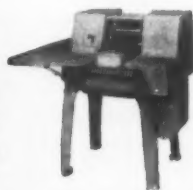
The H. R. Toll Company reports such benefits from its Remington Rand punched-card installation as: on-time statements including complicated container demurrage calculations... automatic accounts receivable aging for faster, easier collections... and inventory control by actual item turnover without guesswork. They also get such time-saving management facts as: fast, detailed sales analysis by product, salesman, territory... up-to-date facts on gross and net

profits... complete data for making decisions on pricing policies... and automatic scheduling of overall operations.

This profit-building idea shows clearly why your Remington Rand representative is so well equipped to do the best job for you. After he gets all the facts about your problem, he is free to recommend the one method which will best suit your needs: manual, visible, photographic, machine, punched-card, electronic, or any combination of these methods. He can also offer you any business service required for the efficient installation and operation of your system. Feel free to call him on any kind of management problem.



**ALPHABETICAL
TABULATOR**



**AUTOMATIC
PUNCH**

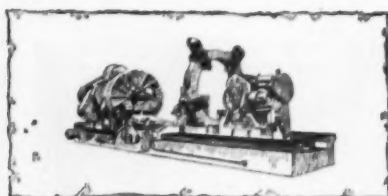


**ELECTRONIC
SORTER**

GOOD EXAMPLE FOR SMALL FIRMS

Certified Report #876 proves once again that small firms, as well as large, can profit by punched-card methods. This report shows in detail how the H. R. Toll Co. cut costs and eliminated overtime with Remington Rand punched-card methods. For your free copy, call Remington Rand in your city or write to Management Controls Reference Library, Room 1213, 315 Fourth Ave., New York 10, N. Y.

Remington Rand
PROFIT-BUILDING IDEAS FOR BUSINESS



How to take 30 years off the age of a 30-YEAR-OLD LATHE



Here's how Simmons rebuilt and modernized this massive 30-year-old 86" x 35' Niles Bement Pond Lathe to perform *better than when new!*

Now back on the production line for one of America's leading steel companies, Simmons rebuilt, re-equipped, modernized the lathe with these features: hardened steel ways; herringbone gears; rapid traverse to carriage; anti-friction bearings; V-belt drive; motor traverse for tailstock. This is

ENGINEERED Rebuilding

It's much more than a mere "overhauling" or "reactivating" of a machine tool. It's a *complete* rebuilding and modernization "from the ground up." It includes dismantling down to main castings, thorough cleaning, testing of all bearings, replacement of worn parts, rewiring of electrical circuits, and so very many other jobs to make the *modernized* machine operate at an even *higher* capacity than its original capacity.

That's not all. The rebuilt and modernized machine tool is "witness-tested" on Simmons' plant floor: a Simmons service engineer carefully checks its performance under actual working conditions—another big reason why Simmons Engineered Rebuilding delivers guaranteed satisfaction.

Send us a list of your machine tools that may need rebuilding. We will promptly quote price and delivery. Write, wire or phone today.

Simmons Machine Tool Corporation

1735 North Broadway,
Albany 1, New York

Export Office: 50 E. 42nd St., New York 17

Philadelphia: Phone Victor 8-3133

Pittsburgh: Phone Penhurst 1-3700

SIMMONS
ENGINEERED REBUILDING
GIVES MACHINE TOOLS
A NEW LEASE ON LIFE

Compressed and Liquefied Gases.	127,940	81.1	1954
Other.....	552,167	63.8	1955
Products of Petroleum and Coal—			
Total.....	1,933,066	50.9	1957
Petroleum Refining.....	1,615,366	50.5	1955
By-product Coke Ovens.....	219,633	58.5	1957
Other.....	98,067	40.8	1954
Transportation Equipment—Total....	1,041,729	83.5	1956
Aircraft Engines and Parts.....	527,825	82.5	1956
Aircraft Parts and Auxiliary			
Equipment.....	206,771	86.7	1955
Aircraft.....	144,314	83.8	1954
Aircraft Propellers and Propeller			
Parts.....	29,367	93.5	1953
Other.....	133,452	79.8	1954
Machinery (except Electrical)—Total	749,205	78.1	1955
Metalworking Machinery.....	226,333	85.5	1955
General Industrial Machinery and			
Equipment.....	110,509	80.4	1954
Steam Engines, Turbines, and Water			
Wheels.....	45,913	40.8	1954
Other.....	366,450	77.5	1954
Pulp, Paper and Board Mills—Total	695,629	66.7	1955
Electrical Machinery, Equipment and			
Supplies—Total.....	466,529	75.3	1954
Communication Equipment and			
Related Products.....	187,518	79.7	1954
Other.....	279,011	72.3	1954
Ordnance and Accessories—Total..	324,667	94.8	1954
Other Manufacturing Industries—			
Total.....	1,029,961	76.9	1956
Nonmanufacturing Industries—Total....	11,387,604	67.0	1960
Utilities and Sanitary Services—Total	4,143,315	64.1	1956
Electric Light and Power.....	3,724,416	61.9	1956
Natural Gas Transmission.....	320,045	78.7	1954
Other.....	98,854	99.5	1953
Railroads—Total.....	3,233,830	88.5	1955
Railroads, Line-haul Operating...	3,192,477	88.6	1955
Other.....	41,353	75.8	1954
Mining—Total.....	1,825,455	43.6	1960
Iron Ores.....	977,563	27.9	1960
Natural Gasoline.....	289,463	76.8	1954
Copper Ores.....	141,007	35.7	1955
Other.....	417,422	60.1	1955
Pipe Line Transportation (Petroleum)			
—Total.....	780,859	56.8	1955
Water Transportation—Total.....	466,966	50.1	1956
Great Lakes Transportation.....	164,327	81.5	1955
Other.....	302,639	33.0	1956
Air Transportation (Common Carrier)			
—Total.....	396,286	56.0	1955
Other Nonmanufacturing Industries—			
Total.....	540,893	77.1	1955

Acme Steel Wire Stitching

Insures S.A. *(Safe Arrival)*

Assembles and closes cartons, fastens labels on products, stitches products to display cards



PRODUCTION UP 66 PERCENT—That's what happened when Rice-Stix, Inc., St. Louis, began fastening labels to pockets of men's overalls with fast, low-cost Acme Steel Stitching Wire. It takes only 4 seconds per label!

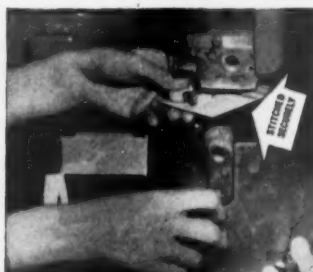
When the things you buy arrive in cartons or on display cards secured with Acme Steel Stitching, you know the manufacturer has taken care to get the goods to you safe.

Acme Steel Stitching—like Acme Steel Strapping—cuts costs, saves time, makes money for leaders in every field who pack anything and ship it anywhere.

Ask your Acme Steel Representative (his name is in the yellow pages of your phone book) for details or savings you can make with an Acme Steel Stitcher. Or write Acme Steel Products Division, Dept. BW-103, 2840 Archer Avenue, Chicago 8, Illinois. Or Acme Steel Company of Canada, Ltd., 660 St. Catherine Street, W., Montreal, Quebec.



STITCH IT...STRAP IT...SHIP IT...SAFELY!



EKCO PRODUCTS COMPANY, largest maker of housewares in the world, uses Acme Steel Stitching to attach bottle stoppers to printed display cards on which they are sold.



BURROUGHS CORPORATION uses Acme Steel Stitching to up production 20 per cent and cut man hours in half in assembling cartons and carton fillers for business machines.



SEVEN-UP, the "all-family drink", presents the new "Family Pack" carrier—as a means to increase take-home sales. The 24-bottle, fibre-board "Family Pack" is assembled with an electrically powered Acme Steel Stitcher using Acme Steel Stitching Wire.

FREE —→

confab

Direct from shipping headquarters, magazine that tells the latest shipping news and developments... yours free for the asking! Just send in the coupon...



ACME STEEL CO., Dept. BW-103
2840 Archer Ave., Chicago 8, Illinois
Please send me a copy of "Confab."

Name _____ Dept. _____

Company _____

Street Address _____

City _____ Zone _____ State _____

RESEARCH



PLANTS,

especially cotton, rate high in North Carolina State's \$2.5-million agricultural research.



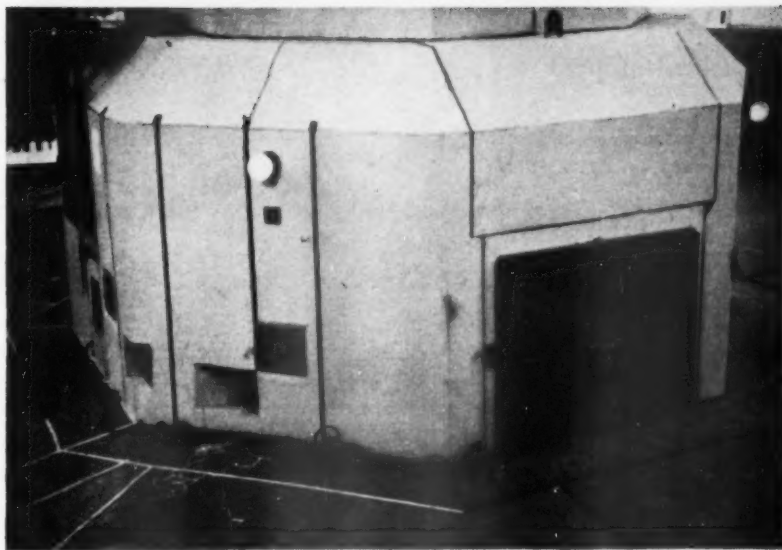
ATOMS are moving into the school's spotlight, now that the first privately owned reactor has . . .

N. C. State Research



FIGURES,

analyzed by the Institute of Statistics, help researchers establish complex relationships.



... gone to work. NCS is hoping that its new project will move its research out of the rather localized and practical fields common to state schools.

Takes a Look at the Atom

(Story continues on page 110)



ANIMALS get plenty of attention in agricultural North Carolina. NCS does heavy work in diseases of poultry and farm animals.

BUSINESS WEEK • Oct. 10, 1953



LIGHT, cast by burning samples, reveals chemical composition.



HERE COMES **Louisiana**

**WITH YOUR FUTURE
IN HIS POCKET!**

Check these facts.

1. *Louisiana* wants new Industry! New Legislation has been passed offering plant site and building advantages to new industry. This, plus the 10-year tax exemption, is evidence of Louisiana's good will and interest toward Industry.
2. *Louisiana* has not one market, but FOUR: Louisiana itself, Mid-Continent U. S. A., Latin America, the WORLD at large!
3. *Louisiana* has the Raw Materials; petroleum, lumber, sulphur, salt, clay, sand, gravel—plus a plentiful water supply chemically suited to the requirements of Industry.
4. *Louisiana's* Transportation facilities are vast—sea, air, motor, and the mighty Mississippi itself.
5. *Louisiana's* perfect climate, (an average of 142 clear days per year) induces many things: more full working days; healthy, contented people and less absenteeism; more opportunity for enjoyable recreation.

**Louisiana would score
"Excellent" on any Check
List of Industrial Planning**

**GET ALL THE FACTS ABOUT
LOUISIANA—WRITE ON YOUR
COMPANY LETTERHEAD TO:**



**Department of
Commerce & Industry
2301 State Capitol,
Baton Rouge, Louisiana**



N.C. STATE students, back for fall term, find something new has been added . . .

A College Eyes the Atom

(Story starts on page 108)

When North Carolina State College reopened for fall business a few weeks ago, returning students found something even more powerful than the football team: a brand-new nuclear reactor. Important research was already popping; the reactor had gone to work Sept. 5, flaunting a proud string of firsts. It was the first privately owned reactor, the first open to public view, and the whole project was the first of its type devoted wholly to peacetime atomic research.

• **Local Aims**—The nuclear project was not just dramatic, it was also a marked departure from the usual research trends of state colleges. Hitherto, North Carolina State, like most similar schools, had devoted its research to projects of specialized interest to the home state and its industries. Thus at NCS current targets include a weevil-proof cotton plant, disease-proof chicken farms.

The bulk of the school's active research programs concern textiles and agriculture—the keystones of North Carolina's economy.

It was no mere whim that turned NCS into the nuclear field. The school was casting about for a way to maintain its position in an increasingly technological society. Till the reactor came along, only a fraction of the school's

research had been aimed at technical developments, although about half of its students were in engineering.

J. H. Lampe, dean of the engineering school, noted that other institutions already had a commanding lead in such research fields as the internal combustion engine, and mechanical engineering. That gave him the idea of a plunge into the relatively new and thinly populated areas of nucleonics.

In time, NCS emerged from a jungle of red tape triumphantly armed with the Atomic Energy Commission's permission to build the reactor and nuclear center. The Burlington Mills Foundation helped out on the financing.

• **Projects**—Meanwhile, though, there is to be no slackening of the engineering school's 108 other research projects, of which 14 are sponsored by the federal government and six by such corporations as the Texas Co. and Glendon Pyrophyllite Co. These projects are delving into such varied fields as refractories, stream pollution, ceramics, and multiharmonic microwave frequency standards. Chemical engineering, mathematics, and physics are all in the picture.

The list sounds fairly imposing, but actually the \$448,000 budget of NCS engineering research is dwarfed by the

The Reader



His Mark

THE ABC that appears in the symbol at the top of this page stands for Audit Bureau of Circulations. The symbol itself is an emblem of cooperation, in which every subscriber to this magazine has an interest.

The Audit Bureau of Circulations is a voluntary, non-profit, cooperative association. It was founded in 1914 and now consists of 3450 advertisers, advertising agencies and publishers in the United States and Canada. This magazine is proud to be a member.

ABC originally was set up to help take the racket out of publishing, to eliminate the waste and guesswork then so prevalent in publishing and advertising, to establish order and confidence in place of the misunderstanding and misrepresentation that arose from unverified circulation claims and dubious circulation practices. Its mission was to protect the interests of both readers and advertisers.

THIS IT DID by first defining the term "paid circulation." Then it established standards and rules to govern subscription sales practices and records. Finally it set up an auditing organization to verify the claims and report the facts concerning the circulation of each member publication. It now maintains on that job a working staff of sixty-five full-time auditors. So the ABC symbol has become the hallmark of circulation standards and advertising values. Each member publication must maintain those standards if it wishes to retain its membership and display the ABC symbol.

This ABC audit is no perfunctory affair. When a business publication, such as this one, becomes a member of the Bureau, it agrees that the auditors shall have "the right of access to all books and records." Their inspection, therefore, may cover any part of its operations. Original subscription orders, payments from subscribers, paper purchases, postal receipts, arrears of payments, and many more items are painstakingly checked by the auditors. In many instances they

go behind the records to seek verification from subscribers themselves as to the terms of their subscriptions.

IN DOING ITS JOB, ABC has created many values for both publishers and readers as well as for advertisers. That is because the publication that becomes a member of ABC thereby offers the strongest possible guarantee of its primary devotion to the interests of its readers. The function of a business magazine is to be useful to its readers. When this service is rendered by an ABC publication, it is constantly subject to the practical test of reader acceptance and approval. As each subscriber has the right to purchase or refrain from purchasing an ABC publication, that collective right confers upon the readers the power to say whether or not the publication will survive. Thus the report on its ABC audit provides the most direct assurance that a publication stays in business only because of a voluntary demand by readers who find its editorial service responsive to their needs.

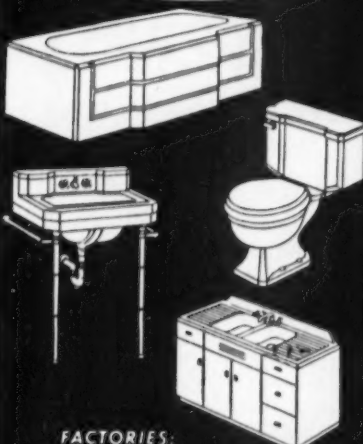
Naturally, the editor of each business publication follows closely the score thus racked up by his paper in its ABC reports. In the scope and tone of his editorial coverage and treatment, in the selection and presentation of his editorial content, he must constantly labor to maintain and enhance the readers' acceptance of his efforts. That is why the editorial standards established by ABC publications set the editorial standards for all publishing. That is how the ABC constantly stimulates its member publications to become even more useful to their readers.

AND THAT IS WHY the ABC symbol has become the Mark of the Reader, a constant reminder that his willingness to pay for an ABC publication is the acid test of its value both to him and to its advertisers.

McGraw-Hill Publishing Company

MANUFACTURERS OF
FINE PLUMBING FIXTURES
SINCE 1904

ELJER



FACTORIES:

FORD CITY, PA. • SALEM, OHIO
MARYSVILLE, OHIO

**HALF THE WEIGHT!
HALF THE SIZE!***



Modine Gas Unit Heaters save you money

*With their stainless steel heat exchangers and burners, Modine Gas-Fired Unit Heaters are 50% lighter — more compact — than the average of seven other leading makes. That means faster, lower cost installation. Fuel bills are less, too — Modines' superior heat throw and air volume assure balanced heating. See them at your dealer or write for detailed information today.

Tear Out Coupon — Mail Today!

MODINE MFG. CO.
1508 DeKoven Ave., Racine, Wis.
Send me free copy of Bulletin 653

Name.....
Firm.....
Address.....
City..... Zn..... State.....



QAT-1200

\$2.5-million devoted to agricultural research.

The director of this agricultural research, Dr. R. W. Cummings, has a rather freer hand than the college's other programs. That's because the 20% of his funds that come from the federal government and the 60% from the state have fewer strings attached than most industrial contributions. This enables Cummings to go in heavily for basic studies that have a long-range potential.

One aspect of this research is a study of the fundamental laws governing genes, chromosomes, and the genetic variations of irradiated seeds.

• **The Weevil**—Cotton still gets high billing, with experiments in the crossing of wild and domestic types to develop the best qualities. For example, take a new approach to the boll weevil menace.

These crafty insects take refuge in the leaves that surround the cotton bloom—and shield the weevil from sprays and insecticidal dusts.

The researchers have noted that one variety of wild cotton has practically none of these leaves. If this quality can be transferred to the domestic cottons, the weevil won't be able to find any hiding place.

Chickens and domestic animals also come under the probing eyes of North Carolina State scientists. Deceased poultry from all over the state are sent in for post mortem studies of cause and future cure.

Of course, these practical concerns impinge on Cummings' relative freedom.

As he puts it himself, "Our external pressures are likely to be directed toward short-range research. Administratively, we realize that the advances of the future are going to come from the long-range work without any immediately recognizable benefits. We try to keep a balance between the two."

• **Textiles**—Such balance is more difficult for William Newell, boss of textile research. About 92% of his funds come from industrial clients, who take a restricted interest in long-range projects that might help their competitors as much as themselves.

In North Carolina's economy, textiles closely rival agriculture in importance. This is reflected in the NCS research. The school has replicas of most textile machines, and uses them for studies of textile processing, chemistry and dyeing, and the search for new fibers.

The research is divided roughly evenly between the mills and the makers of synthetic fibers. In the synthetic field, the school does work for such outfits as American Cyanamid Corp., Celanese Corp. of America, Dow Chemical Co., B. F. Goodrich Chemical Co., and Saram Yarns Co.

• **Statistics**—Along with its material-type projects, NCS has two other quite different programs: An Institute of Statistics is trying to improve experimental procedures, and (2) an Industrial Psychology section is working on such human problems as accidents, management selection, and equipment design.

To some extent, the Institute of Statistics functions as an arm of the agricultural section. Thus, though it does much basic work on statistical methods, it always keeps in mind the special needs of the agricultural scientists. By the same token, other NCS research programs can call on the institute for improved methods of testing their findings.

The institute gets most of its funds from the school itself, for which it does a share of work. But defense agencies have also assigned basic projects to it, and the Rockefeller Foundation has helped.

• **Psychology**—The Industrial Psychology group, for its part, gets nearly all its funds directly from projects it is carrying out. For one thing, it handles all the eye tests for automobile drivers in North Carolina, which is the only state using special machines to make this test. And the state Department of Motor Vehicles in return provides more than half of the institute's total funds.

With part of this money, along with help from the State Optometric Society and from industrial clients such as the McLean Trucking Co. of Winston-Salem, the institute does research in the causes of auto and truck accidents, the relation of vision to efficiency, and similar subjects.

Up to now, most of this work has been applied research, but from now on the institute hopes to dig more into the basic aspects of attitudes and emotions. The goal: the abstract keys to new practical problems.

• **Balancing Act**—The institute hopes to get financial assistance for these basic studies. If it does, it will have the same problem as the agricultural research group in trying to balance pressure from outside—notably from those supplying funds—against the hopes and plans of the administrators.

Actually, this problem of balancing pressures is practically universal among college research departments. The men running the departments want to do basic research. They know that industry runs on the basic research work done in the universities over the years. They know the universities are the natural centers for such research. But still they feel that applied projects are needed to keep scientific staffs going and to supplement funds obtained from the universities' endowment funds—funds that haven't gained so fast as inflation has run up costs (BW—Sep.12'53,p81).



Greatest door opener of them all!

Telegrams get in even where and when nothing else can. They *always* get read first—often get action in *minutes*. They reach the man you want to *reach*—They are fast, clear, concise, considerate—compelling. Telegrams are an *automatic* signal of the importance of your messages. Make Telegrams *your* key to better business.

when it means business
it's wise to wire—

WESTERN UNION

HOW OUT-OF-DATE IS YOUR INTERCOM SYSTEM?



Change to Today's Most Modern and Complete Telephone System . . .



'Private Line'

Noisy amplifiers — lack of privacy — high costs for rented equipment — inefficient operation. The four nuisances of out-of-date intercom systems are all eliminated when you change to 'Private Line'.

Completely new design gives you, in one system, all of the really new advances in intercommunication. Improved switching mechanisms, simplified circuits, faster dial operation and many other features make 'Private Line' the most modern of all intercommunication systems.

Contact with anyone in your organization is a matter of seconds with 'Private Line'. New, simplified circuits help you "get your man" faster than on any other system.

Individual phones have exceptional clarity of tone. There is no "What's that again?" on Private Line. Voices are distinct and true-toned. You can't get a bad connection.

Because your every intercommunication problem is handled by one system, 'Private Line' will save you money from the very first day! High rentals for extra outside telephone facilities are eliminated — there

is no more lost time spent in walking, waiting, tracking down information. These savings can pay for your 'Private Line' System in one year or less!

'Private Line' systems can be expanded from 10 up to 1000 or more stations.

Write today for further information on 'Private Line' — the one system that can fulfill your every intercommunication requirement.

Connecticut

TELEPHONE & ELECTRIC CORP.

30 Britannia St., Meriden, Conn.

☐ Send me the full story of PRIVATE LINE systems.

☐ We would like a survey of our intercommunication needs and actual savings.

Signed _____

Company _____

Address _____

Scientific Dictionary Grows Some More

Jeffrey R. Stewart, a chemical engineer and president of Stewart Research Laboratory at Alexandria, Va., has just published the Fourth Edition of Stewart's Scientific Dictionary. Unlike the three previous editions, the first of which appeared in 1940, the new edition covers terms used in all chemical process industries.

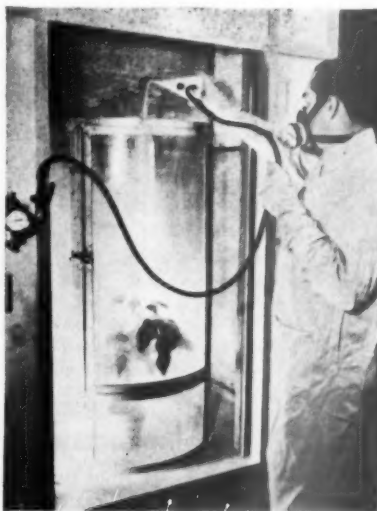
In earlier editions, Stewart restricted the dictionary to the protective and decorative coatings industry. Now Stewart has greatly expanded the new edition.

And in the future, he hopes for still further expansion.

The nearly 800-page volume includes many of the trade names used in the chemical process industries as well as the general terms for raw materials and descriptive terms of processes. For instance, the volume defines Kadox as the trade name for a group of lead-free zinc oxides produced by New Jersey Zinc Co.

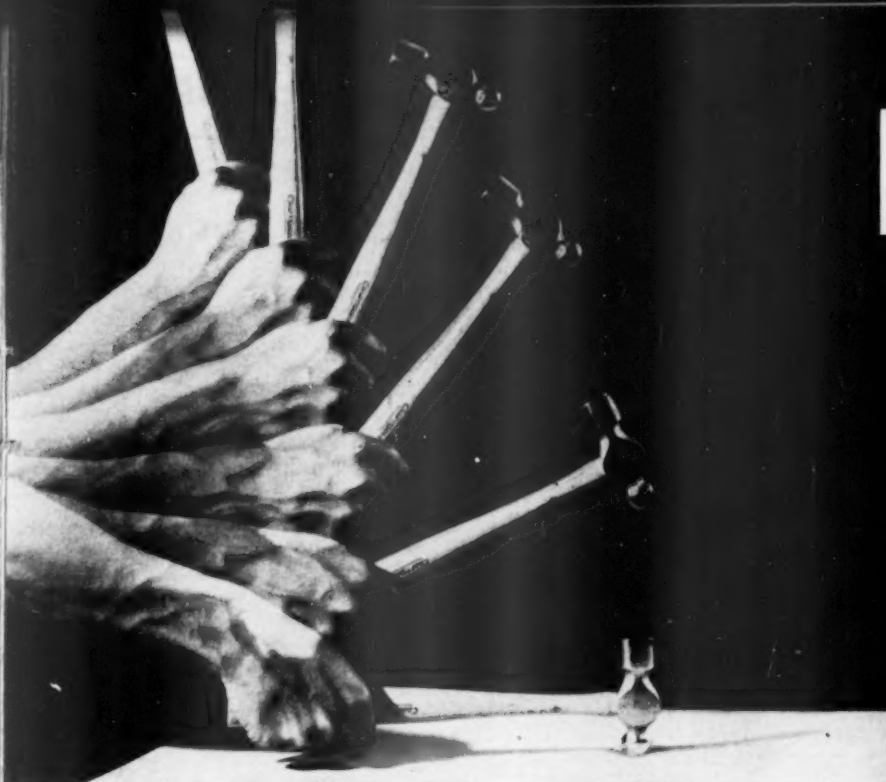
Yet it also defines such general terms as light, lime, and paint.

Stewart, who was formerly special assistant to the Quartermaster General, spent more than a year doing research work in order to produce the new and enlarged book.



Dust Caps for Plants

But they're to keep the dust on the plant, not off. The specially designed hoods are part of the equipment in the new Agricultural Chemicals Laboratory at American Cyanamid Co.'s central research labs at Stamford, Conn. They permit dusting the test plants with the maximum of experimental chemicals, but keep the dust from drifting around.



WON'T SHATTER OR CHIP: Stroboscopic photo shows that repeated hammer blows dent metal but the unusual flexibility and adhesion qualities of NUBELON-S protect the finish from harm.

ENTIRELY NEW BAKING ENAMEL!

NUBELON-S

TOUGHEST—MOST FLEXIBLE EVER DEVELOPED

Now—for the first time—here is a finish that is much harder than any known organic film . . . yet is so flexible and adheres so well it can be bent and twisted without cracking.

More than five years in the making, NUBELON-S combines unique properties which make it ideal for use on home appliances, metal furniture, prefabricated farm silos, fencing wire, and many other applications.

NUBELON-S is available in whites, greys, yellows, blue, tan, green and red. It bakes at 425°F. for 30 minutes.

This new coating is already in use by a number of manufacturers and is being tested by many others. There may be countless applications not yet explored for this extraordinary new enamel. If you have a potential end use which warrants development, we will welcome your inquiry.



HIGH HARDNESS: Pencil hardness test shows the NUBELON-S film is 50 per cent harder. It withstands a 7-H pencil as compared with a 2-H for generally used appliance finishes.



EXTREME FLEXIBILITY: NUBELON-S on wire is spiraled around a pencil to demonstrate the flexing it can take without cracking or flaking.



EXCELLENT STAIN RESISTANCE: All typical household stains, many of which cause permanent damage to ordinary organic finishes, wipe off NUBELON-S easily without leaving a trace.



Write today for a descriptive folder giving complete NUBELON-S specifications.

THE GLIDDEN COMPANY

INDUSTRIAL FINISHES DIVISION

11005 MADISON AVENUE • CLEVELAND 2, OHIO

SALES OFFICES AND FACTORIES: San Francisco, Los Angeles, Chicago (Nubian Division—1855 North Leclair Ave.), Minneapolis, New Orleans, St. Louis, Cleveland, Reading, Atlanta and Toronto.



*At this very moment,
hovering over your plant,
fire is ready to swoop down on
storage spaces, electrical generating
equipment, record vaults.
But like a bird of prey, it
casts a warning shadow... IF
you have a KIDDE Industrial
Smoke Detector.*

Kidde

Walter Kidde & Company, Inc.

1025 Main Street, Belleville 9, N. J.

Walter Kidde & Company of Canada, Ltd., Montreal, P. Q.

RESEARCH BRIEFS

Research specialist is the title of a new employee classification established by Dow Chemical Co. The firm says the purpose of the new classification is to give recognition for research ability equal to that given by administrative classification. Dr. L. K. Frevel of Dow's Spectroscopy Lab is the first scientist to be awarded the new rank.

A contract assuring continuation of an infrared spectroscopy project at the University of Tennessee has been signed by the Army's Office of Ordnance Research and the chemistry and physics departments of the school. The project is a basic study of the mechanical qualities of molecules, which may give information on a molecule's size, shape, and other properties.

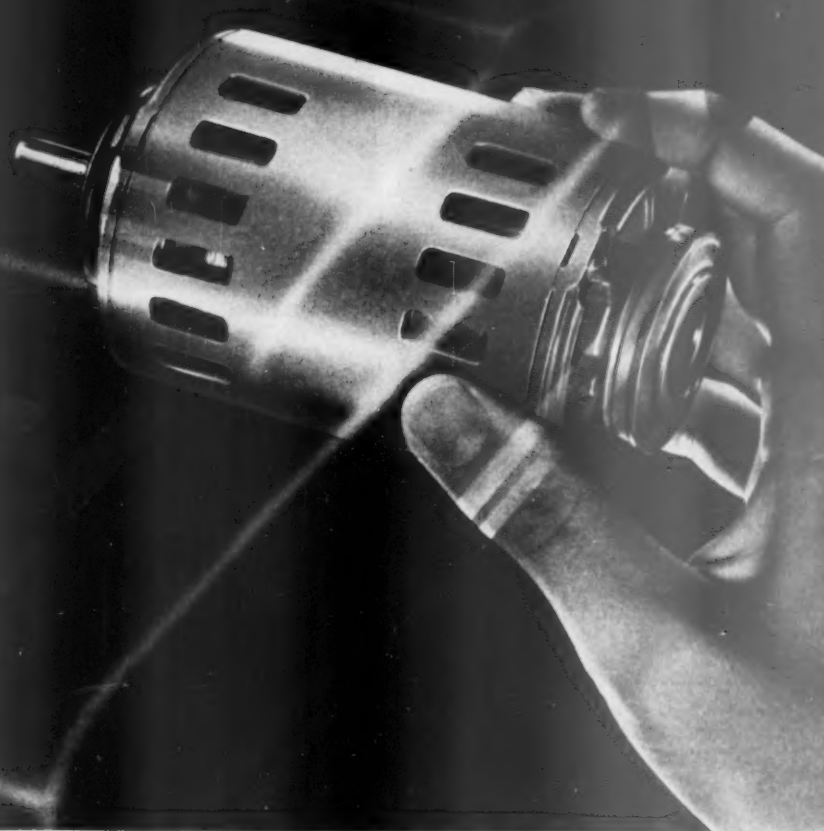
Sixty grants totaling \$150,000 have been approved by the Research Corp. for support of research in the physical sciences, engineering, and mathematics. The grants, distributed among 49 colleges and scientific institutions, were the fourth group made by Research this year and brought its 1953 total to \$428,000.

An automatic dishwasher for laboratory use is being introduced by Chemical Rubber Co. (Cleveland). The Lab-washer, being manufactured for CRC by Westinghouse Electric Corp., is specially adapted for washing test tubes, flasks, beakers, and other laboratory equipment.

Cardio-vascular research got a boost in Georgia with the establishing of the first two chairs for this field at Georgia medical schools. The Georgia Heart Association granted \$12,000 each to the Medical College of Georgia and the Emory University School of Medicine for salary and other expenses on cardio-vascular research. The schools will each supply additional funds.

Camels are next on the list of animals to be studied by Duke University scientists. A group from Duke recently planned a trip to study the giraffe, hoping to get information of value in combating high blood pressure (BW-June 27'53, p166). Now a Duke research pair, Knut and Bodil Schmidt-Nielsen, plan to study the secret of the camel's survival in hot, dry climates.

The cotton industry needs more research to maintain its competitive position against rayon and other synthetics, according to William Rhea Blake, executive vice-president of National Cotton Council.



G.E.'s all-new miniature motor... Allows more compact product design

This new miniature induction motor . . . initially developed for the business machine industry . . . is an important advance toward more compact design in *many* fields. Only three inches in diameter . . . this new motor is tough . . . is noiseless within ordinary ear range . . . needs practically no servicing . . . and is free of radio interference.

G-E Specialty Motor engineers in Ft. Wayne, Indiana studied the demanding requirements of the machine designers and then built a motor to meet

these needs . . . another example of the engineering skill and thoroughness with which General Electric produces fhp motors . . . of all kinds for you.

Whenever you need motors, remember G.E.'s reputation for quality and completeness of line.

For complete information on Specialty Motors, the famous Tri-Clad* motor or the new fhp motors, contact your nearest G-E Apparatus Sales Office or authorized G-E distributor. Schenectady 5, N. Y.

*Reg. trade-mark of General Electric Company

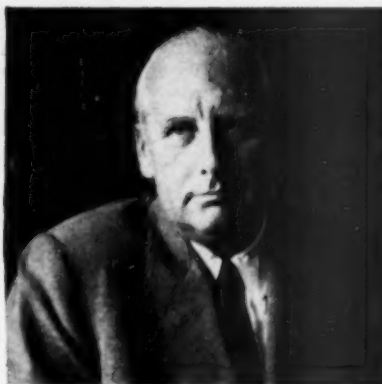
647-10

You can put your confidence in—

GENERAL  **ELECTRIC**

MANAGEMENT

**Los Angeles is a city
with a few big cor-
porations managed
by such men as . . .**



Reese H. Taylor, president of Union Oil, one of the biggest U. S. firms and . . .



Robert E. Gross of Lockheed, one of the group of aircraft businesses in the area.



Hugh L. Clary, of Clary Multiplier Corp., started making business machines in 1939.

**. . . and more often
than in most places
they are men with
scientific training.
For instance . . .**



Philip S. Fogg, Consolidated Engineering Corp., studied engineering at Stanford . . .



Robert P. McCulloch, McCulloch Motors, is a Stanford engineering graduate . . .



Dr. William P. Lear is chairman and research director of Lear, Inc.

**...some have grown
big enough to start
plants in the East.
Two of the most
recent . . .**

L. A. Way: No Plunge But an

This December, Hoffman Radio Corp. of Los Angeles will open a brand-new television manufacturing plant across the Rockies in Kansas City. In so doing, Hoffman is adding momentum to a move that promises to have a growing impact on the West Coast business

picture—especially around the Los Angeles area.

Traditionally, most companies have branched westward. Some—among them Carnation Co., Rexall Drugs, Inc., and American Potash & Chemical Corp.—recently have even established head-

quarters there, though this has never been a major trend. Now an impressive number of Los Angeles and other California businesses are heading east.

The shift was already showing several years ago when Standard Oil Co. of California (San Francisco) set up a

... but most of its executives are running businesses they themselves started ...



Leo M. Harvey of Harvey Machine is one. He's expanding into aluminum ...



Roy E. Marquardt of Marquardt Aircraft was aeronautical engineering head at USC ...



J. Simon Flour, Flour Corp., Ltd., heads an organization packed with engineers.



Kenneth T. Norris, Norris-Thermador Corp., bought a Milwaukee manufacturer while ...



H. Leslie Hoffman, Hoffman Radio Corp., wants a bigger market beyond the Rockies.

Easygoing Push

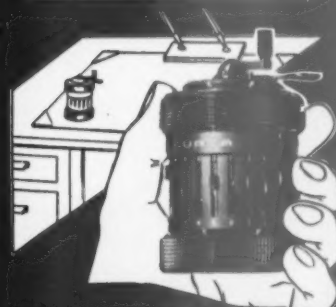
subsidiary, Calso, in the East, and Pabco Products, Inc. (San Francisco), built a huge plant in New Jersey. Lately a number of Los Angeles companies that sell nationally have felt the need for plants in the East to speed service to eastern and midwestern markets. One

example is Norris-Thermador Corp., electrical appliance and plumbing-ware manufacturer, which last week announced it had purchased A. J. Lindemann & Hoverson Co., a Milwaukee appliance maker. General Controls Co. and W. J. Voit Rubber Corp. are

CURTA

Calculating Machines

Lowest Priced,
Complete Calculators
on the MARKET!



The low initial cost and trouble-free service of your CURTA Calculating Machine saves you money.



Field Work — distance and weight figures



Sales Engineering — shipping and discount ratios



At The Board — blueprint specifications



Inventory — totals wherever you go

Assign it any of the normal computing problems which occur during every business day. It performs admirably as a desk type machine giving rapid results. CURTA Calculating Machines can be transported with ease to hundreds of vantage points in your business, and are very simple to operate. Because of their low price your appropriation for calculating equipment spreads over a larger number of these versatile machines giving more individuals in the organization a personal calculating machine.

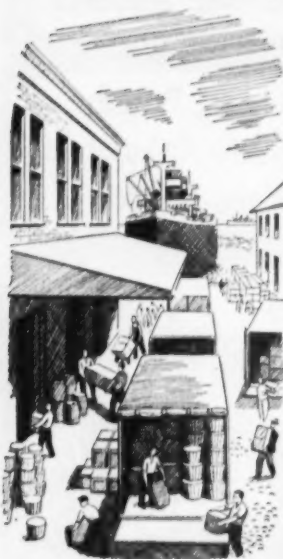
FULLY GUARANTEED
for complete descriptive Literature,
or 10 DAY FREE TRIAL

Write Dept. BW 10

CURTA Calculator Co.

3851 W. Madison Street
Chicago 24, Illinois

Markets were this plant's big location problem . . . WHAT'S YOURS?



A midwest manufacturer of durable goods wanted to locate a new plant in the high-income northeast area, as near as possible to his best potential markets. He took his problem to the Industrial Location Service of the State of New York. Within a short time he had complete, confidential data which enabled him to determine the most concentrated markets, and to select the most efficient location from which to reach them.

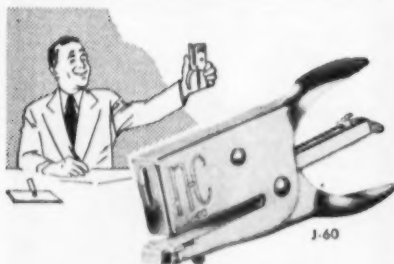
You can get complete, accurate and confidential information—without obligation—from the Industrial Location Service, on the following important site factors: Labor, sites, raw materials, transportation, community services, markets, power and fuel, available buildings, and state regulations.

GET FREE BROCHURE: "Industrial Location Services." Also detailed physical map of N. Y. State. Write New York State Department of Commerce, Room 741, 112 State St., Albany, N. Y.



Industrial Location Service of New York State

"WE DON'T SELL SITES—WE MATCH NEEDS"



VP's AND N-C's GO TOGETHER

Why? Because every exec requires some device to fasten papers. And N-C, the plier-type stapler, is the executive's choice. It looks "executive". It's compact, flat; stows away handily in a shallow desk drawer. No more fumbling with tiny clips.

ASK YOUR COMMERCIAL STATIONER TO SHOW YOU NEVA-CLOG

N-C INDUSTRIAL FASTENING

Neva-Clog plier-type Staplers seal packages, bags, affix labels and tags, join heavy fabrics, light woods, plastics, etc.—often faster, cheaper than any other method.



Write, on your letterhead, requesting stapler for free trial.

NEVA-CLOG PRODUCTS, INC.
508 Logan Street, Bridgeport 1, Conn.

PAGE FENCE - Since 1883

• AMERICA'S FIRST WIRE FENCE •



Could you **blame** yourself if failure to safeguard property resulted in loss? After all, isn't property protection a responsibility of all management? Security against many forms of loss and damage is a job for Page Chain Link Fence, available in either heavily-galvanized Copper-Bearing Steel, long-lasting Stainless Steel or corrosion-resisting Aluminum. But **PAGE** means more than a quality product. It is a complete fence service, performed by more than 100 firms having technical training and fence erecting know-how, and conveniently located throughout the country. For illustrated data on Page Fence and name of firm nearest you, write to—

PAGE FENCE ASSOCIATION • Monessen, Pa.

others that have branched eastward recently.

• **Challengers from L. A.**—This development is something that could change most businessmen's point of view about Los Angeles. Up to now, the sprawling West Coast city has mostly spelled a lush market to outsiders; from here on it may look more like breeding ground for a nest of competitors.

• **He's Not a Type**—Just what sort of management man does Los Angeles breed?

Trying to pick a type is pretty much a waste of effort. Unlike Detroit's auto men (BW—Apr. 25 '53, p. 56) or the high-flying Houston wildcatter, the Los Angeles executive doesn't really fit a pattern.

For one thing there is a diversity of business, which complicates the picture. L. A. isn't an auto town or a textile, banking, or insurance town. No one industry dominates. Oil is big—two of the three companies in the top 100 nationally (based on assets) that are located in L. A. are oil companies, Union Oil Co. of California and Richfield Oil Co. (the third is Kaiser Steel Co.). But oil doesn't dominate. Neither does aircraft—despite Douglas Aircraft Co., Inc., North American Aviation, Inc., and Lockheed Aircraft Corp.—nor movies, electronics, textiles, agriculture, construction, though all are big. And lately Los Angeles has become a major insurance center.

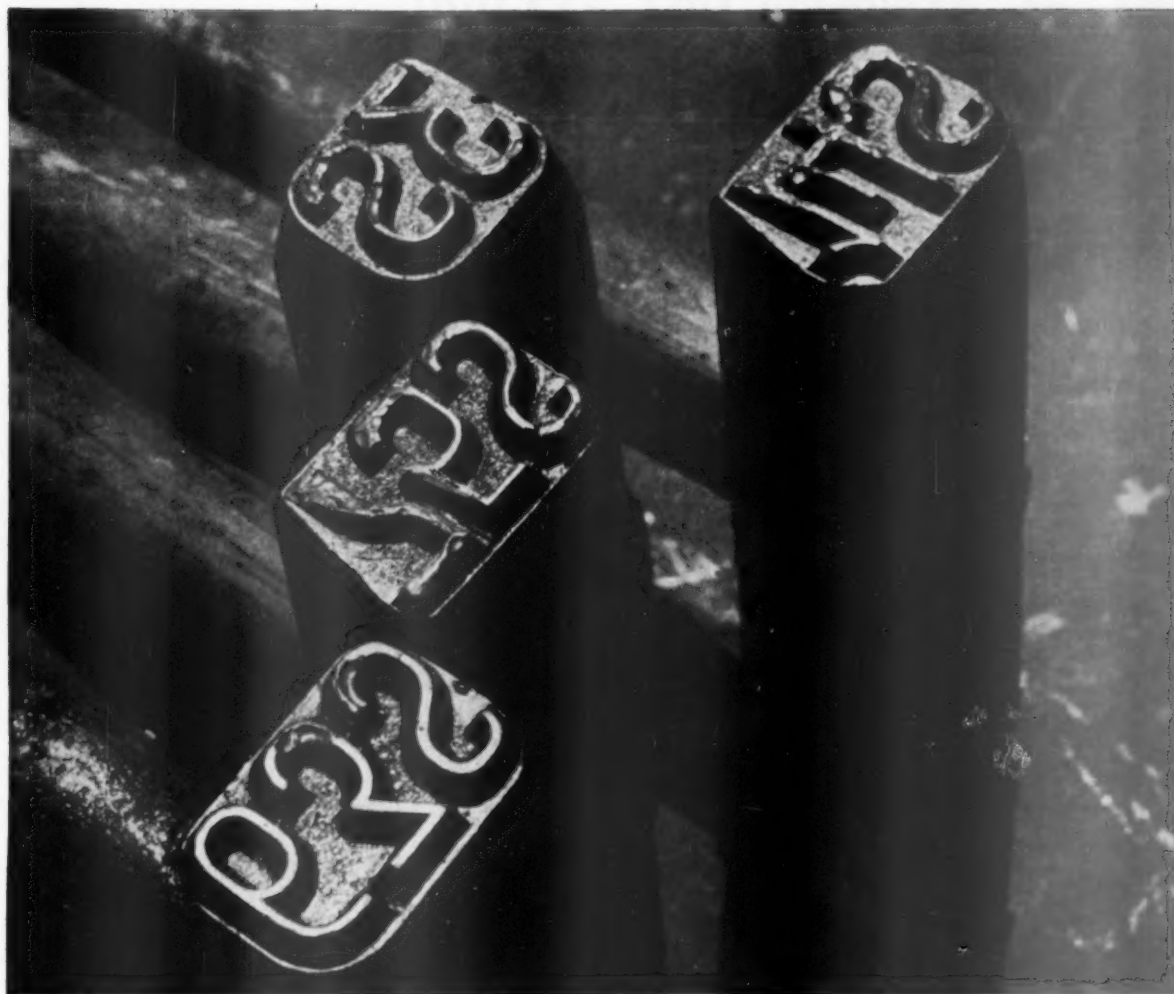
Even so, there are some distinctions you can draw that at least give part of an answer to the question.

I. What They Do

In Los Angeles, there are three major groups. One is the large number of branch plant managers. They form the bulk of management people. They feel their pay falls short of that for comparable positions in the East, but working conditions are good and many would quit their jobs rather than go back East.

Then there are the small manufacturers—hundreds of them. They get a kick out of their work because L. A. offers a lot of custom business. As owners, they can take more out of their business than they could get in big salaries somewhere else. They're made up of older people who came West to retire but gravitated back into business; young people that like to stay put; employees of big Eastern companies who quit their jobs and opened a business to make L. A. their permanent home.

A third group is likely to get larger as the electronics and engineering business booms. More than in most cities, everywhere you turn you find a president who has an engineering or some other scientific degree. These are men



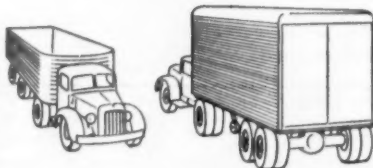
R_x...for strength

A metallurgical prescription for increasing the strength of pure aluminum calls for magnesium, copper, silicon or zinc in carefully prescribed amounts. Every Harvey Aluminum ingot has its alloy number imprinted in the metal by a blow from a hammer like one of those above. Alloys ranging from 3S, almost pure aluminum, to 75S, with yield strength greater than steel, provide flexibility in bending and forming, mechanical and fusion joining, speed and ease of machinability. Careful alloying to bring about any desired degree of strength

exemplifies the attention Harvey pays to special customer needs. This policy of customer service is not a recent innovation. It began 40 years ago. Since the beginning, customer service has been a controlling company policy at Harvey's . . . a policy that has sustained our growth over the years to a place among the world's largest producers and fabricators of aluminum. Harvey's integrated team of research specialists, metallurgists and engineers, today as yesterday, is at *your* service. Let us know about your needs . . . today.

MAKING THE MOST OF ALUMINUM...FOR INDUSTRY...

The strength, lightness and application flexibility of aluminum extrusions can be translated into many advantages for many industries: added payload capacity for freight, passenger, material-handling equipment; more maneuverability and greater range for aircraft; portability, corrosion resistance and eye-appeal for consumer items; benefits "all across the board".



HARVEY

Aluminum

HARVEY ALUMINUM SALES, INC.
TORRANCE—LOS ANGELES, CALIF.
BRANCHES IN PRINCIPAL CITIES

An independent facility producing special extrusions, pressure forgings, bar stock, forging stock, tubing and related mill products.

This "FF" explosion cost \$55,000



**Famous City Hall
"Blows it's top"**

A burner Flame-Failure ("FF") explosion literally blew the roof off of the famous city hall at [redacted], causing \$55,000 damage and disrupting government.

Such explosions occur when burner flames fail and shut-down of fuel is not immediate. In a few seconds, the still-flowing fuel forms dangerous gases which ignite explosively on hot fire brick.

It could happen to you . . .

IT COULD HAPPEN, and it could be costly . . . if your present "safeguard" responds slowly.

Today, insurance companies require automatic safeguards for commercial and industrial burners to shut off fuel in 2 to 4 seconds after a burner Flame Failure [FF]. Relatively few flame failure safeguards now in use can satisfy that requirement. Most of them actually require more than a minute for response. If your safeguard is that slow, you may be relying on no protection at all!

Don't delay in replacing slow, half-safe controls with the modern, fully-approved FIREYE System . . . the only complete and instantaneous safeguard for all types of fuels. With FIREYE, an electronic "eye" works with the speed of light when a burner flame goes out, to cut off fuel and signal operating personnel.

Thousands of installations prove FIREYE has no equal for reliability. Can be applied to oil, gas, coal burners "overnight"—for a negligible investment.

**Play Safe!
Send Now!**



Covering the U. S. A.—and Canada, factory-trained field engineers provide "know how" of flame-failure safeguarding with FIREYE.

Why take chances? Even with modern equipment, the chances are 4-to-1 you do not have complete flame-failure safeguards. Send for this new "primer" on explosion hazards that tells how you can make simple checks on the protection you now have.



COMBUSTION CONTROL CORPORATION

Dept. BB-10, 718 Beacon St., Boston, Mass.

Send booklet, "Guarding Your Properties Against Flame Failure Explosions".

Name Title

Firm

Address

such as Carl F. Braun, founder of C. F. Braun & Co., which builds oil refineries and chemical plants (about \$85-million worth a year). Dr. Arnold O. Beckman (Ph.D.) heads Beckman Instruments, Inc.; Philip S. Fogg runs Consolidated Engineering Corp. (BW—Nov. 5 '52, p170); Trevor Gardner, 36, chairman of the board of Hycon Mfg. Co., is now on leave as special assistant to the Air Force Secretary.

These and others like them have something else in common. Because it's industrially young, in L. A. many top executives still run businesses that they founded or developed. Leo M. Harvey is president of Harvey Aluminum; Hugh L. Clary heads Clary Multiplier Corp.; Thomas E. Leavey and John C. Tyler are top operators of the Farmers Insurance group, which they started 25 years ago.

Then, of course, there are the heads of companies that rank among the major U.S. corporations—The Bank of America, Union Oil, Richfield, Kaiser, Pacific Mutual Life Insurance Co., General Petroleum Corp., and the aircraft industry.

II. How They Operate

Such heterogeneity makes it hard to pin a label on the Los Angeleno executive. He doesn't wear a 10-gallon hat and high-heeled boots. But just the same, there are some common characteristics.

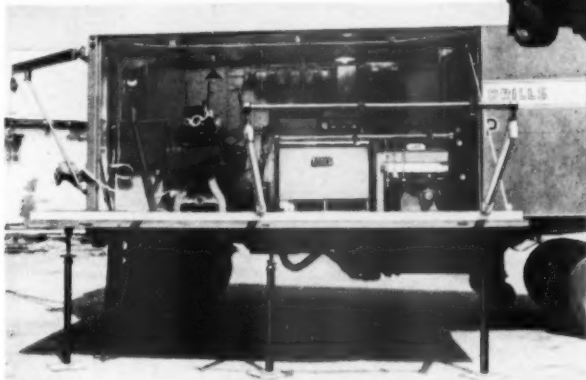
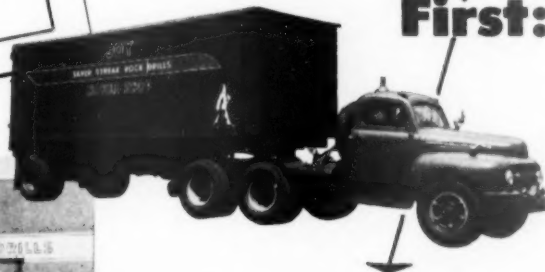
One important thing to remember is that he has been part of what until fairly recently was in many ways an isolated economy. Before the big California population spurt in the past 25 years, distance coupled with transportation problems was enough to deter many U.S. firms from doing business on the West Coast. A lot of things in recent times have altered that but many of the men who run business there today grew up in that atmosphere.

If you do business with them, though, you'll find they aren't markedly provincial in outlook. They subscribe to all the Washington news outlets they can get, to national business and news magazines. They have their regional publications, but they want to keep tabs on what's going on throughout the country. On Asia, they are probably more internationally minded than some of their counterparts in New York. That's understandable, especially in view of their fond hope that if Asia ever develops Los Angeles will become the center of the world. They exhibit less knowledge, interest, or concern about Europe, of course.

• **One-man Shows**—When it comes to their businesses, the thing that strikes an outsider is their stress on self-reliance. When they have a business problem, they try to figure out the

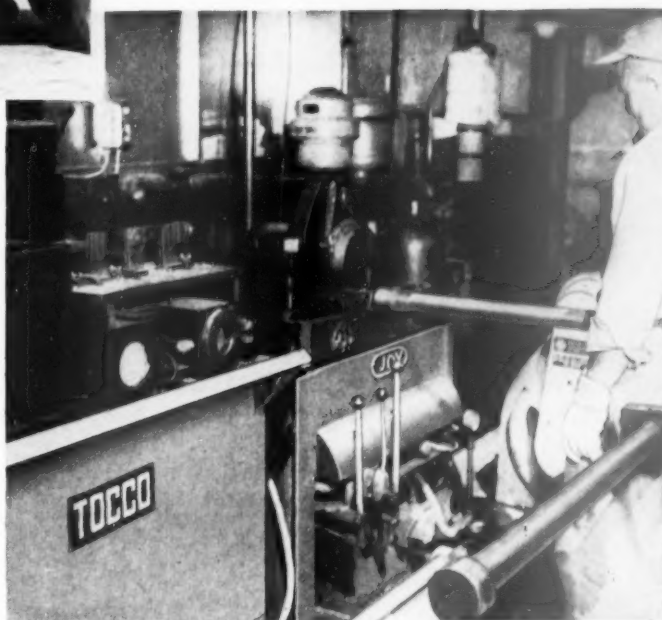
Announcing
with
"JOY"

Another
TOCCO*
First:



Joy Manufacturing Company's Mobile Shop for on-location reconditioning of mine drill steels.

**Induction Heating
on Wheels!**



Operator guiding drill steel in upsetter after heating end to 2200° F in TOCCO machine at left.

BECAUSE of the size and length of mine drill steels, (some weigh as much as 320 lbs. and are 30 ft. long) much expense and lost time was involved in shipping them back to the factory for reconditioning. Realizing this problem, Joy Manufacturing Co., Pittsburgh, Pa., decided to send "Mohammed to the mountain" in the form of the *Joy Mobile Shop*.

The purpose of the Mobile Shop is to travel to designated territories in the United States, calling periodically on users of Joy's "Challenger" Drill. All broken drill steels are reconditioned on the spot—saving Joy's customers transportation costs and lost time.

The Joy Mobile Shop carries a 20 KW, 10000 cycle TOCCO Induction Heating machine, powered by a diesel-electric generator. The TOCCO unit heats the drill steels to 2200° F for upsetting, then reheats the upset ends to 1500° F for normalizing prior to machining.

This unusual application story is typical of the way TOCCO engineers team up with American Industry for better products and services, faster—and at lower cost.

THE OHIO CRANKSHAFT COMPANY



TOCCO

New Technical Film-

If you would like to see our new 30 minute color film—"The TOCCO Story" write on your company letterhead to The Ohio Crankshaft Co., Dept. W-10, Cleveland 1, Ohio.

Pyrophyllite, titania or glaze frits...



**Ceramics industry gets fast, accurate quantitative analysis
with GE fluorescent x-ray spectrometer**

As in so many other fields, fluorescent x-ray spectroscopy is finding wide application in ceramics. To cite a few examples...



In research — to determine the amount of cobalt and nickel deposited during the firing of enamel ground coats.



In raw material analysis — to speed the determination of niobium in titanium oxide... of iron in pyrophyllite.



In product control — to permit easy comparison of the amounts of lead in glaze frits.

And GE XRD-3S spectrometers are proving their value in other industries — chemical, petroleum, mineral, metallurgical. Everywhere they maintain high accuracy over a wide range of concentrations. They're

fast — only one to five minutes per element on any atomic number above 22.

If you need fast, accurate analysis of your materials, get all the facts about fluorescent x-ray spectroscopy. A recent article by R. F. Patrick of Pemco Corporation tells how they make profitable use of x-ray diffraction in the ceramic field. For this or other applications, write X-Ray Department, General Electric Company, Milwaukee 1, Wisconsin, Rm. AO-10.

You can put your confidence in —

GENERAL  ELECTRIC

answer themselves, instead of checking what others are doing about it.

They aren't association-minded as, for instance, San Francisco management people are. In San Francisco, two or three telephone calls will give you an answer to many business questions. That's not true in L. A. Executives stick pretty close to their jobs; many aren't very well acquainted beyond their own industry circles.

• **The Life**—Because everybody comes to Los Angeles, the Los Angeles executive probably knows many out-of-towners as well as he does businessmen of his own community—and some recent arrivals make a point of selling the visitors on the glories of L. A. Executives' homes are spread out in widely separated sections of the city. For the most part, the homes are not so pretentious as most people think, although backyard swimming pools are not too unusual and the ranch-type houses can get pretty plush. On the social side, L. A. has few well-established cliques. Most executives belong to two or even three of the downtown clubs where they lunch—the Jonathan, the California, and the University Club. Many also belong to residential clubs, like the Bel-Air Club.

• **Home-town Spirit**—Although they aren't provincial in the usual sense of the word, they are rather smug about doing business in the easy-living West. They claim New Yorkers, to justify their harassed eastern existence, have to convince themselves they live in the hub of the country.

But the Chamber of Commerce brand of bluff camaraderie—the booming "Los Angeles is bigger and better" approach—is somewhat subdued nowadays, although there's a united effort to get more of the basic industries that Los Angeles lacks.

• **No Plunger**—There's no doubt that living is easier in the West. On the whole, the L. A. executives manage to steer clear of frenzy. They aren't gamblers—though a field such as oil has built-in risks. There's none of the plunger you'll find in other places. For instance, many a native businessman didn't see the tremendous potential in his own backyard until branch plants of eastern companies started popping up everywhere. Today, L. A. is still essentially a branch plant town. For a city as big as it is, that's significant.

But they aren't conservatives, either. They fall halfway between a Denver and Houston executive.

They lack the plunger's attitude toward money. As businessmen, they look two ways—production and sales. They'll shy at a financial problem.

• **Relaxed**—This absence of hurly-burly habits shows up in their attitude toward work. Top executives aren't drivers. They often take two and a half



HOW LONG WILL THIS WELL PUMP OIL?

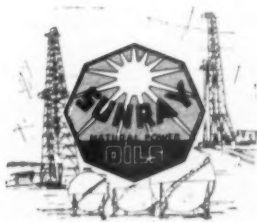
Oil wells in the recently formed SACROC Unit in Scurry County, Texas, have been producing oil for more than four years. Reservoir engineers believe that the unit can produce for at least 20 more years at the same rate it is producing today. If nothing were done to the wells during that time, the production of oil would naturally decline. However, with modern oil recovery methods by water and gas injection and pressure maintenance in the producing formations, engineers estimate that the production from this unit area of approximately 49,000 acres may be increased from 501,000,000 barrels to 1,224,000,000 barrels.

Under normal operating procedures usually only from 15 to 30 per cent of the oil in place underground can be produced by primary production methods. When reservoir engineers can treat an entire oil field as a single operating unit under pressure regulation, up to 80 per cent of the oil in place may be produced.

Modern methods of reservoir engineering are proving a most valuable means of increasing the ultimate recovery of oil from SUNRAY properties.

Reservoir engineers representing the more than 45 operators in the field have estimated that this unit operation, by a committee representing all the ownership interests, will more than double SUNRAY's recoverable oil reserves from its net unit interest in the SACROC Project.

Reservoir engineering is a part of the production magic which helps keep America's industry progressive—and SUNRAY's progress and America's progress go hand in hand.



SUNRAY OIL CORPORATION
GENERAL OFFICES • TULSA, OKLAHOMA

POWER

WITH

COMPOUND

INTEREST

With the installation of any unit of Brown Boveri power generating or distribution equipment, the user is assured of notable dollar savings in initial cost. Beyond this—like compound interest—he gets high operating efficiency, long life, minimum maintenance, thorough dependability and world-famous Brown Boveri quality.

These tangible benefits* can be yours, too, when you specify Brown Boveri for your power needs. Why not write for specific facts on your requirements?

buy brown boveri
... it's better business!

BROWN BOVERI CORPORATION
19 Rector St., New York 6, N.Y.

Can we serve you
with any of these
BROWN BOVERI
products?

Steam Turbine
Generators
Turbo Blowers &
Compressors
Gas Turbines
Power Circuit Breakers
Lightning Arrestors
Mechanical Rectifiers
Radio Transmitters
& Tubes
Belatrons for Clinical &
Industrial Uses
General Voltage
Regulators
Slop Motors



hours for lunch. Night work isn't uncommon, but isn't regular practice either. Weekends are kept free.

III. Bird's-eye View

H. Leslie Hoffman of Hoffman Radio is probably as near to a type as you can find. He's head of his own business, is expanding eastward, runs an electronics company, and came out from the East to stay. He acts as spokesman for his industry, but isn't too well known outside his own bailiwick.

• **In a Day**—You get a glimpse of the L. A. picture in action when you look at Hoffman's life. Hoffman, who lives in San Marino, a northwest suburb, gets up at 6:45 a.m., checks in at the office no later than 9 o'clock. On the way, he usually drops his daughter Jane off at school. He drives his own car—a 1953 Cadillac—to work. It takes him 25 minutes to drive the 13 miles to his office. His office isn't particularly fancy.

He has a tailor-made desk big enough to hold blueprints of new products. His walls are covered with functional things like sales charts.

In a day he'll talk to from 20 people to as many as 60. At least two nights a week Hoffman works until 10:30 p.m. On another two nights he takes work home. But he studiously keeps Friday nights and weekends completely free.

His chief outdoor diversion is golf. He's also active in the Civic Light Opera and the Hollywood Bowl concert associations. He's also head of the Chamber of Commerce TV committee.

• **Onward and Upward**—His business is booming like many others in L. A. This week he announced he has frozen distributorships at 44—double a year ago—because he can't take on any more manufacturing responsibility right now.

September was his biggest month in history, both in sales and production. Volume in 1953 should be \$60-million, up from \$35-million last year.

THE MANAGEMENT PATTERN

Business and Sociology

LAST WEEK another attempt was made to see if universities and business could achieve the sort of cooperation in sociology—the science of how people live and work in groups—that already exists in the physical sciences.

The meeting was held in New York. On the one side were top social scientists Rensis Likert of the University of Michigan's Institute of Social Research, Samuel A. Stouffer of Harvard's Laboratory of Social Research, Robert Merton of Columbia's Bureau of Applied Social Research, and Solomon Fabricant of the National Bureau of Economic Research. For business there were personnel and industrial relations men from such companies as General Electric, Standard Oil (N. J.), AT&T.

The idea was the brain child of Rex F. Harlow, a West Coast public relations consultant and publisher of the Social Science Reporter (BW—May 9 '53, p70). Harlow wanted to get the group in an all-day session to swap views on the sociologists' role in business.

RELATIONS BETWEEN the universities and business have been getting a lot closer in the last few years. But there's still one big deficiency: The cooperation has been largely confined to the physical sciences and to those social sciences most closely identified with the

immediate problems of management—like economics.

Last week's meeting cast some light on why:

• The sociologists were on the defensive from the start. The industry people wanted to know, "What can you do for us?" They weren't fully convinced that sociologists could be practical.

• Business still isn't certain that it wants the kind of elaborate research in sociology that it supports in other sciences.

SEVERAL REASONS lie behind these attitudes. The sociologists are unable to point to many major successes in their fields as the chemists, say, can in theirs.

Then there's the age-old hurdle that faces all students of human motivations and group actions: At best, controlled experiments are time-consuming and difficult.

On top of that, the sociologists must by the nature of their work delve into ticklish areas of management philosophy and motives.

Despite these difficulties, management has never barred sociologists. But neither has it accepted them as it has other scientists.

Dr. Stouffer came up with what might be the answer. He suggested that business establish for social studies something similar to the famous Bell Telephone Laboratories for the physical sciences.

WHY IT PAYS TO BUY STEEL FROM WAREHOUSE



You don't get caught with steel you can't use !

**WHEN YOU BUY STEEL FROM
WAREHOUSE, YOU GET:**

- LOWER INVENTORY COSTS
- LOWER SPACE COSTS
- LOWER TIME COSTS
- LOWER CAPITAL INVESTMENT
- FASTER PRODUCTION
- FEWER INVENTORY LOSSES

You can avoid this costly possibility by using the nearest U. S. Steel Supply warehouse as your own. From it, you can get the steel you need . . . in large or small quantities . . . cut to your specifications . . . delivered to your production area . . . at the time you desire. You run no risk of inventory obsolescence. Your U. S. Steel Supply salesman will help you put your steel purchasing on a most economical and efficient basis.

U. S. STEEL SUPPLY

DIVISION

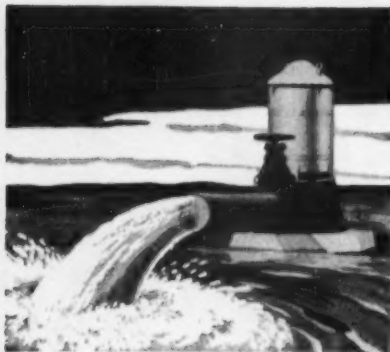
General Office
208 So. La Salle St., Chicago 4, Ill.



Warehouses and Sales Offices Coast to Coast

U N I T E D S T A T E S S T E E L

Let Layne help you Plan ahead for water needs



Water needs require long-range plans—for safety, dependability, economy and maintenance of an adequate supply of the right quality. In all such plans, Layne's engineering skill, research facilities, and world-wide experience are at your service.

In a Layne water system, the name of the world's most experienced water developing organization stands behind everything—engineering, labor, wells, casings, screens, pumps. There is undivided responsibility!

Ask for catalogs—For helpful catalogs on Well Water Systems or specific information on water supply problems, contact your nearest Layne Associate Company or write:

LAYNE & BOWLER, INC.,
Memphis 8, Tenn.



**WATER WELLS
VERTICAL TURBINE
PUMPS**

Water Treatment
Layne Associate Companies
Throughout the World

Electronic Babel . . .

. . . is cured by U. S. Steel system. The many languages of office machines are translated on one tape.

Up to now there has been a big catch to hitching up assorted electronic calculators and bookkeeping machines: The critters don't speak the same language. Translating data back and forth from machine to machine has proved a massive time waster.

Now U. S. Steel Corp. thinks it has beaten the rap with a punched tape system. After years of work, Big Steel thinks it can make all its office machines record their bits on a single strip, which would contain every bit of information needed from the time an order arrived until the shipment was finally made.

• **Converter**—In this system, each machine has a tape converter that translates the data arriving on the strip, digests it, and then adds its own contribution. The strip is then ready for the next machine.

Suppose a U. S. Steel district office receives an order for 500 tons of carbon steel. The typewriter then runs off the order and simultaneously punches a coded tape. The tape is then run into a bookkeeping machine, which "reads" it, and then records other data, manually added by an operator. The resulting consolidated and coded statement is then ready for the next machine.

• **Special Equipment**—While this is going on at headquarters, the plant that will handle the order also gets in the act. It receives the necessary information by teletype machine, which prints the order instructions and at the same time also punches out a duplicate tape.

Big Steel calls its method an "integrated data processing system through common-language machines." The company is already using some machines equipped for the new process, but it reports that most office equipment cannot be converted to tape procedure. However, manufacturers are beginning to turn out typewriters, calculators, bookkeeping machines, and production recorders that are ready for single-tape work.

U. S. Steel says that conversion may be expensive, but that savings in time and paper work should make it worth while.

• **Production**—Way off in the distance is an even fancier prospect. Some production machinery controlled by punch cards is already in use. So the day may come when an order, translated onto tape, will wind up setting the wheels spinning in the plant itself.

This Phone can cut costs for you . . .



Autophone Systems

CUT COSTS BY:

Eliminating Delays

Immediate contact between all phones . . . free of switch-board delays.

Eliminating Call-Backs

Incoming calls for information can be answered without necessity of calling back.

Eliminating Non-Business Calls

Where outside contact is not necessary Couch phones provide interoffice service only.

Eliminating Unnecessary Rental Phones

Privately owned Couch phones replace unnecessary rental phones . . . eliminate their cost.

Write for Catalog 52 E
covering systems from
2 to 50 lines.



Company, Inc.

NORTH QUINCY 71,
MASSACHUSETTS

Built better to last longer!



Invincible Metal Filing Cabinet drawers are equipped with ball-bearing cradle suspensions that glide freely at the slightest touch. They stand up under rugged day-to-day office use. Invincible's "finger-touch" compressor pulls up more firmly, locks more securely, provides greater usable drawer space. You get Invincible's better construction at a price you would expect to pay for ordinary filing cabinets. See your office equipment dealer today.

Choose 2, 3, 4 or 5 drawer cabinets for all sizes of letters, documents and cards.



INVINCIBLE

INVINCIBLE METAL FURNITURE CO., Manitowoc, Wis.

MANAGEMENT BRIEFS

The Eastman Kodak Co. is donating \$1.4-million to the University of Rochester's drive to raise \$10.7-million to hire new teachers and expand student services and facilities.

Planes, the official publication of the Aircraft Industries Assn., says the oil industry now owns 1,723 aircraft for use by company personnel. Last year these planes logged 60-million mi.

Stock purchase plans are on the rise in Canada. Aluminium, Ltd., is the latest to join the trend with an initial 160,000 shares set aside for purchase by the company's 25,000 workers.

North Carolina's attorney general has ruled that state-chartered companies can make limited educational donations without stockholder consent. This is in line with a recent New Jersey court ruling upholding a company's right to make unrestricted donations to universities (BW—Jun. 6 '53, p. 67).

Vanderbilt University has set up an Institute of Industrial Research & Development. Facilities are being rented for \$1 a year from Tennessee Products & Chemical Corp. Equipment installed by Tennessee Products and other companies for research projects will remain at the institute.

Engineering and research personnel of Raytheon Mfg. Co., Waltham, Mass., who engage in graduate studies will get a helping hand with their tuition costs under a new company grant-in-aid plan.

General Electric has added a fifth product department—commercial equipment—to its electronics division. The new department will handle GE's TV station equipment and industrial radio communications. It was formed, says GE, as part of the product concentration program required by its growing electronics business.

U. S. Rubber Co. has shifted vice-president John P. Coe from his job as general manager of its Naugatuck Chemical Division to handle the company's interests in the forthcoming transfer of the government's synthetic plants to private hands (BW—Jun. 6 '53, p. 26).

Industrial pension plans negotiated by unions have more leeway on retirement age than plans set up by the companies themselves, according to a study by the Bankers Trust Co. Only a third of the union-negotiated plans call for automatic retirement at 65 against three-fourths of the company plans.

NOW You Can *See* Where You Can't *Look*

UTILISCOPE

(WIRED TELEVISION)

Improves Operations In Sugar Refinery



"Utiliscope" camera provides the EYES for watching cane conveyor load and reporting to control tower.

At the EWA sugar refinery in Hawaii, a series of conveyors carry the cane through various washing and cutting operations before the juice is squeezed out. For efficient operation, the conveyor that feeds the squeezing rolls must be correctly loaded at all times. Being out of sight of the control tower where the conveyor system is controlled, it has been necessary previously to keep an extra man on watch. Then, delays and misunderstandings in communicating with the control tower impaired efficiency and reduced output.

A Diamond "Utiliscope" ... now also the first wired television in Hawaii ... does the watching. It brings a clear image of the conveyor and its contents right in front of the man in the control tower. Adjustments are made instantly when needed. There can be no misunderstanding. Savings will pay for the equipment in less than a year, according to EWA.

Diamond "Utiliscope" has solved many difficult problems in materials handling where it is necessary to observe things which are too remote, too inaccessible, too hot, or too dangerous for direct observation. Write for Bulletin 1136T; it suggests many uses that cut costs and improve operations.



Operator in control tower SEES cane conveyor load on "Utiliscope" screen.

**"UTILISCOPE" WILL MORE
THAN PAY FOR ITSELF DURING
FIRST YEAR OF OPERATION**

DIAMOND POWER SPECIALTY CORP.

FIRST IN INDUSTRIAL TELEVISION

LANCASTER, OHIO • OFFICES IN 39 PRINCIPAL CITIES

Diamond Specialty Limited — Windsor, Ontario

Since 1903, Diamond has Manufactured Quality Equipment For Industry



TAKE
A
TIGER

BY THE TAIL!

Easiest way to move fast is to catch on to something going like a tiger in a tantrum . . . and go swoosh with it.

Like plastics. Companies scouting for fast-moving new areas to sell are discovering the plastics market . . . and expanding with it.

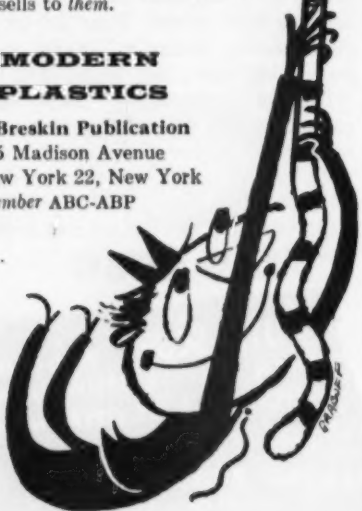
See what's afoot: More than half of today's toys are plastic . . . and the toy business is booming. Records, pop and classical, are plastic . . . and platters are going like hotcakes. Cars, refrigerators, hardware . . . almost everything is using more and more plastics—to sell more . . . or cut costs . . . or make a better product.

What can you sell to the people who use plastics? Not just the "makings" of plastics . . . but machines, tools, a raft of supplies.

To explore the field, drop a line to MODERN PLASTICS, the business magazine that has helped bring up the plastics market from a cub . . . doing a fine job for everyone who makes plastics . . . or uses plastics . . . or sells to them.

MODERN PLASTICS

A Breskin Publication
575 Madison Avenue
New York 22, New York
Member ABC-ABP



WHAT IT'S ABOUT

U. S. Report Analyzes Rival Idaho Dam Plans

DENVER (AP)—A high official of the United States Bureau of Reclamation has issued a report showing a high dam at Hell's Canyon in Idaho would be superior in volume of power production to either three or five dams advocated by Idaho Power Co. The Department of the Interior's Bureau of Reclamation is studying the fifty-year amortization period would be 900,000 kilowatts for the high dam, 619,000 for three dams, 610,000 for five and 620,000 for two dams. Costs were estimated by the Bureau as follows: Construction, \$83,600,000; high dam, \$100,000,000; two dams, \$100,000,000.

Foes of New York's St. Lawrence Project Must Turn to Courts

By a Wall Street Journal Staff Reporter
WASHINGTON—Opponents must turn to the courts, if they plan any further action to block New York State construction and operation of a hydro-electric project in the International Rapids section of the St. Lawrence River.

The Federal Power Commission rejected three petitions for rehearing on its order of July 15 licensing the project to the Power Authority of the State of New York.

DAM OF COLUMBIA MAY BE COSTLIEST

Newest Project in Northwest
Power Pool, The Dalles, Is
in Era of Mounting Costs

By LAWRENCE E. DAVIES

Special to The New York Times

THE DALLES, Ore., June 20—Despite a swollen Columbia River, work is pushing ahead here on a multipurpose concrete dam equivalent in length to seven Empire State Buildings if toppled over and laid end to end. The Dalles Dam, destined to be one of a series of major units in the harnessing of the Columbia for power, is the costliest project in the Northwest Power Pool, The Dalles, is in the era of mounting costs.

U.S. Private Pooling Of Missouri Power Urged

Atlantic City, N.J.

The head of a private electric company called on Interior Secretary McKay to study the idea of pooling power from the Federal Government's hydro projects on the Missouri River with eight Iowa companies.

N. B. Gusselt of Des Moines, president of Iowa Power & Light Co., told electric industry executives at the Edison Electric Institute convention that former Secretary of Interior Oscar Chapman refused to meet with power companies.

such a success in 1952 that it is being continued and enlarged this year, said Mr. Sutton. Participating communities selected 887 projects, with providing better schools and improving sidewalks and streets the most popular choices.

W. W. Lynch, president of the Texas Power & Light Co., discussing safety programs of the industry, stated that economic loss due to accidents involving electrical contacts amounts to \$150,000,000 a year.

Private Atomic Plants Urged

THE FIGHT OVER HYDROPOWER IS MIXTURE OF . . .

Dams, Cables, Congress

You don't have to go back to Franklin's 1752 kite experiments or even to Edison's 1882 generating station in New York City to understand the current controversies over power.

If electricity were produced exclusively from the burning of coal or could be sold in one of Ben Franklin's jars, the federal government would have only a regulatory finger in the pie.

But the Federal Government is solidly planted in the industry because a lot of electricity comes from the flowing waters in the nation's navigable streams.

• **Taking the Reins**—Congress gathered its vast authority over power through its constitutional authority to regulate interstate commerce—which means authority to control interstate waterways.

And the same dam that controls a flood or irrigates a field also produces power as a byproduct.

Through its own actions and with a helping hand from the Supreme Court, Congress by 1940 had become the final

arbiter in the use, misuse, or waste of the power in almost any interstate stream—even some that could hardly float more than a rowboat.

• **Key**—This comprehensive authority, liberally delegated to the executive departments, is the key to any understanding of the high-voltage oratory over water power development. About 26% of the energy produced in the U.S. comes from hydropower—and about 90% of the controversy. The government itself produces about 13% of the total power.

Here are the agencies in the middle of the squabbles:

• **Federal Power Commission** exercises part of the authority delegated by Congress: It makes decisions on development by nonfederal agencies.

• **Tennessee Valley Authority**, Bureau of Reclamation, and Army Corps of Engineers plan and construct federal power projects.

• **Bonneville Power Administration**, Southeastern and Southwestern

CLEARING

a company is known
by the machinery
it keeps

Jarecki quality is built on men and machines.

The men are expert craftsmen whose names
will never be news, but the names on Jarecki
machinery are known around the world.

Each is the finest product in its field.

We acknowledge our indebtedness to names

such as Clearing, Bliss, Danly, Cincinnati,

Kearney and Trecker, Pratt and Whitney, Carlton,

Mattison, and Giddings and Lewis. These names

and the machines behind them have helped to

make the name Jarecki a symbol of dependability.

CINCINNATI

JARECKI

engineering tools dies stampings assemblies plating painting

GRAND RAPIDS, MICHIGAN



JARECKI MACHINE AND TOOL CO.
JARECKI PRODUCTS INC.
JARECKI ENGINEERING CO.



MODERN

Oildraulic® Elevator NEEDS NO PENTHOUSE OR HEAVY SIDEWALLS



Economical to install and operate

The Rotary Oildraulic Elevator is moved and controlled by the smooth, dependable, economical power of oil under pressure.

The elevator car and its load are supported by the hydraulic system—not by the building structure. This eliminates the costly, unsightly penthouse that interferes with modern architectural design. It also makes possible a substantial lightening of the shaftway structure. Rotary's compact electric power unit can be located on any landing,

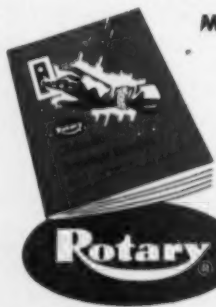
on any side of the elevator hatchway.

The revolutionary Rota-Flow oil-hydraulic power system gives velvet-smooth fluid operation. You can depend on smooth starts and accurate, cushioned stops.

Over 75,000 Rotary Oildraulic elevators and lifts are now in service throughout the world. Our Engineering Department will be glad to assist you on plans and specifications.

ROTARY LIFT CO.

1033 Kentucky, Memphis 2, Tenn.



MAIL NOW FOR NEW ELEVATOR CATALOG

Rotary Lift Co., 1033 Kentucky, Memphis 2, Tenn.

Send free booklet on Rotary Oildraulic Elevators to:

Name _____

Address _____

ROTARY OILDRAULIC ELEVATORS
For Passenger or Freight Service

Power Administrations market power from all Engineer-built projects.

• TVA and Reclamation market it from their own projects.

I. Development

Back in the early days Congress itself considered applications for water power development and granted individual patents for construction and operation.

Now this job falls to the Federal Power Commission, which Congress set up in 1920. Any electric company, state, municipality, cooperative or individual wanting to build a water power facility must come to FPC for a license.

It is then FPC's job to determine whether the proposal allows for the most comprehensive development of the site. A staff of FPC lawyers and engineers gives each application a thorough going-over. Any opposition is heard in trial-like proceedings—first before an FPC examiner and later before the full, five-man commission.

The Federal Power Commission—like any regulatory agency—doesn't operate in a political vacuum. The President names its members for five-year terms, and on hot issues in the past it has managed to see eye-to-eye with the administration in power.

• **Exhibit A**—The battle over who is to build what kind of dam or dams at Hells Canyon on the Snake River in Idaho is a top example of how power generates controversy. A hearing is now being held by an FPC examiner to decide whether the private or public project is best.

Idaho Power Co. is arguing that its plan for three low dams along the Hells Canyon site is superior to one high dam that might be built by the federal government or some other agency.

Hells Canyon has a long history of political controversy. Politicians and others from the Oregon-Idaho area still split down the middle over private or federal development. Farmers, unions, and industrialists take both sides.

• **High Dam, Low Dams**—Idaho Power's low-dam plan has some points in its favor. The projects can all be in production in three years or less from the time a license is issued. Total cost of the three low dams is about one-third of the single high dam.

The federal high-dam plan is still indefinite. Congress would have to authorize it and appropriate money for it. And it would take 8 to 10 years to build. Main points in its favor are that it would produce more power and have considerably more storage area.

Part of the conflict at Hells Canyon, on the surface at least, is between the two types of projects.

• **Public vs. Private**—A prime example



You can measure Brown & Root's

EXPERIENCE

in terms of **DOLLARS**



Almost four decades of diversified experience in heavy engineering and construction has built a background for Brown & Root that can mean dollars and time saved for your company. This fact is verified by the great number of repeat contracts awarded Brown & Root by a growing list of satisfied clients.

Brown & Root never accepts conventional procedures as final, and constantly probes for better methods in engineering and construction. Centralized responsibility coordinates this thinking and loyal personnel sees it through to fast economical completion.

If your company plans new construction or plant expansion . . . a call from you will place Brown & Root plant planning experts at your disposal . . . no obligation, of course.



BROWN & ROOT, INC. *Engineers · Constructors*

P. O. BOX 3, HOUSTON 1, TEXAS

CABLE ADDRESS — BROWNBLT

Associate Companies: — BROWN ENGINEERING CORP. • BROWN & ROOT MARINE OPERATORS INC.

for new and different CHRISTMAS BUSINESS GIFTS



This year Autopoint is 1st with the newest in Christmas business gifts. Impressive items from 50¢ to \$50.00. With personalized imprints for a lasting reminder, or without imprints. Autopoint's complete new line meets your every gift need... appropriate items for your entire list from presidents to shipping clerks. For gifts you'll give with pride—see Autopoint 1st!

FOR A LOOK AT OUR LINE

mail coupon on your letterhead

AUTOPOINT COMPANY

A division of CORY Corporation

1801 Foster Ave., Chicago 40, Illinois, Dpt. BW-103
Gentlemen:

I am interested in the complete new line of Autopoint Christmas business gifts. Without obligation:

- ☐ Please send me your 1953 Gift Brochure
☐ Please have your representative contact me

Name _____
Company Name _____
Street _____
City _____ Zone _____ State _____
Please clip this coupon to your letterhead

of a purely private-public conflict is in proposals to develop additional power at Niagara Falls. In this case, Congress has maintained its own jurisdiction.

The fight here is only on who will build the project. Major contestants are five big New York electric companies on the one side, and the state of New York on the other. Under the Truman Administration, the federal government had also bid to build the huge power project, but the Republican Administration has withdrawn.

The five companies won the initial round this year when the House voted to direct FPC to issue a license to them. Gov. Thomas E. Dewey, speaking for the state, succeeded in stalling action in the Senate.

• **Power vs. Other Interests**—Still another variation of the conflict comes when a proposed water power project interferes with other interests. It's relatively easy to understand why Pennsylvania coal men would oppose the huge St. Lawrence power project, which dims some of the prospects for an expanding coal market in that area.

But there are all sorts of other conflicts between water power and other interests. In the Pacific Northwest, commercial and sports fishing organizations oppose power projects that might interfere with their fishing runs. Landowners whose acreage would be flooded also become highly vocal.

• **Federal Projects**—The federal government has come in as a competitor in electric power generation when Congress, as big boss over the nation's rivers, has directed it to build scores of projects including power generation facilities.

These projects are partially justified on the ground of some flood control, navigation, irrigation or recreation features. But to provide the most comprehensive development of the water resource, power production is often an integral part of the project.

The planning and construction agencies like TVA, Army Corps of Engineers, and Bureau of Reclamation work under general authority granted by Congress, but their first-hand knowledge in the field often gives them information and training that Congress just doesn't possess. Thus with aggressive men in these agencies, there is always the chance that they will seize these advantages to shape development programs to their own liking.

This happened time and again during the New and Fair Deal periods.

II. Marketing

With few exceptions power produced at plants of private electric companies, states, municipalities, or other non-federal agencies is marketed in more or less the same way. Occasionally FPC

Better Business, thanks to Berlitz



75th Year

Trans World Airlines requires that its pursers and hostesses speak a foreign language. More profitable operations result. Here's the moral: Equipping your overseas personnel with a second tongue will give them a big advantage—whether they're dealing with native labor or servicing customers. Berlitz will teach any spoken tongue to your employees, quickly and easily. Ask about this program that has helped TWA and other farsighted American firms.

Schools in leading cities from Coast to Coast.
Consult your classified directory or write:

BERLITZ SCHOOL OF LANGUAGES
630 Fifth Ave., New York 20 CI 6-0110

If you GRIND, BUFF or POLISH you need CONE-LOC® DRUM SANDERS

Use strips of abrasive AT 1, THE COST of endless belts! Smooth, balanced, safe up to 7000 SFPM. Used by many of nation's largest manufacturers. Trial offer. Write AMERICAN DIAMOND SAW SALES, 120 N. W. Ninth Avenue, Portland 9, Oregon.

Also available through all "Carburandum Co." dealers



HEART OF BALTIMORE LOCATION

LORD BALTIMORE HOTEL

No matter for what reason you come to Baltimore, the chances are we're nearest to where you want to go.

RIDE TO A PROFIT IN WHEAT FUTURES

Did you take a profit from the recent break in Wheat Futures? Send for free information about the Specific Advices given by ACTION LINE SERVICE which produced better than 40¢ profit in two big moves.

ACTION LINE SERVICE has recommended four trades since October 1, 1952, two of them for long profits on the down side. Profits over losses have amounted to better than 40¢.

When Wheat Futures started to fall in November 1952, were you advised to take a short position in the market?

Send now for free information on ACTION LINE.

J. W. GOLDSBURY COMPANY
811 Marquette Avenue
Minneapolis, Minnesota

may require some allocation of power to adjoining states. But the producer decides on distribution to consumers in the service area.

But marketing of power produced at federal plants is something else again. The kilowatts are the same, but who will distribute the power is a hot issue. The biggest fights in Congress are over federal transmission lines. Private companies have long wanted to buy electricity at the dams, deliver it to customers. Public power crusaders continually pressure for public lines, with the federal agency dealing directly with the customers.

• **Public vs. Private Again**—Public agencies and cooperatives in the power distribution business have a big stake in a federal power project. Under the law, they get first preference in buying the power. And because the government pays no taxes to itself, they get relatively cheap rates.

But cheaper power doesn't solve all their problems. Getting the electricity from the dam to the publicly owned system is expensive.

• **Methods**—These methods are used to get power from plant to consumer:

Bus bar sales—This is the "come and get it" way. The marketing agency simply sells power at the dam or a switchyard. The actual connection is made at the plant bus bar. All power is sold this way at Hoover Dam.

Federal transmission—Second way to deliver federal power is to transmit it over government-built lines. Bonneville Power Administration has an extensive transmission system for this purpose.

Wheeling—The irregular flow of rivers frequently rules them out as producers of constant or "firm" power, and makes their power high in cost, but in conjunction with steam plants, they do offer economical power.

Thus in the Southwest and to a lesser extent in the Southeast, novel marketing arrangements are in effect.

These "wheeling" contracts work like this: An electric company takes power produced at the federal project into its system, "firms it up" by power from its own steam plants. An amount of power equivalent to that taken in is delivered to the preference customer over company lines. The government pays the company for the service. The preference customer deals directly with the government.

• **New Proposal**—One result of these contracts has been, in effect, to put the private company in a position of helping the government steal customers.

Georgia Power Co. is now negotiating to put a new twist in these contracts. It's willing to serve the preference customers. But the company wants to buy the power at the bus bar and keep the preference customer as a customer of the company.



Yes, the Ransburg story of cutting painting costs to a fraction of the cost of other methods does sound good. It is good!

On most factory production lines, the Ransburg electro-coating processes will provide 2 to 4 times more parts per gallon of paint—automatically—with one operator doing the work of many.

That's because the Ransburg No. 2 Process is the most efficient spray coating process ever developed for industry's use.

If you are a manufacturer of painted products, and if your work volume warrants conveyorized painting, we'd like to tell you more about the production efficiency of the RANSBURG No. 2 PROCESS as it applies to YOUR production. Too, we'd like to show you typical examples of customers' production lines where the Ransburg No. 2 Process is setting new quality standards . . . increasing production . . . and at the same time, saving manpower, money and materials.

Write for literature, or send for "Miracles In Painting"—our new 16mm. sound and color movie which shows on-the-job examples of Ransburg Processes at work in industrial plants all over the nation.



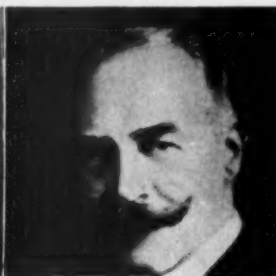
Ransburg ELECTRO-COATING CORP.

INDIANAPOLIS 7, INDIANA

INSTITUTIONS



VICTOR HERBERT



GEORGE MAXWELL



SYLVIO HEIN

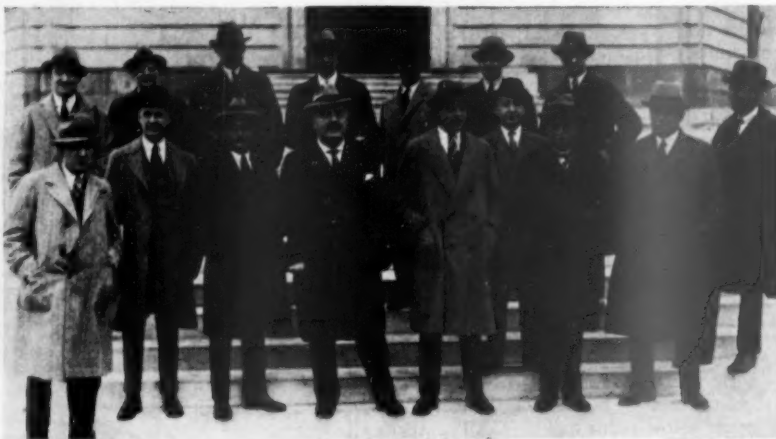


LOUIS A. HIRSCH



RAYMOND HUBBELL

ASCAP's 10 founders: "This society has not been formed to make a fight upon anyone. . . . [But] when



DELEGATION: Copyright-law hearings brought this ASCAP elite corps to Washington in 1914. Front row, starting second from left: Von Tilzer, Berlin, Herbert, Buck, Sousa.



ALL THROUGH the night, records are raw material for radio, fees for ASCAP.

ASCAP: Collecting

Because more and more of the U. S. public is waking up to music, working to music, eating to music, and relaxing to music, a society called ASCAP will probably collect more money this year

than ever before in its history—a fact that will be music to the ears of its 3,400-odd members.

Last week ASCAP, the pronounceable abbreviation for the American So-



1 A.M. Art Ford winds up first hour on WNEW, New York.



2 A.M. On Milkman's Matinee, Ford aims at musical balance.



NATHAN BURKAN

GLEN MACDONOUGH

JAY WITMARK

GUSTAVE KERKER

JOHN GOLDEN

orchestras play the music of our members, they will have to pay for the right to do so. That is only fair."



PROPHECY of news story backfired. It predicted revenue of \$1-million first year.

MOST PERFORMED tune, Stardust, took crown from The Stars and Stripes Forever.

PRESIDENT of ASCAP today is Stanley Adams, lawyer with 100 published tunes.

for the Piper's Tune

ciety of Composers, Authors & Publishers, told its West Coast members at a Los Angeles meeting that revenue in the first eight months of 1953 was something to sing and shout about.

Unofficial word was that collections had run to the tune of some \$11.4-million, roughly \$650,000 more than in the same period last year. At that rate, the year's take would be close

to \$17-million—the total last year was \$16.3-million.

It would be the most money ASCAP had ever collected in nearly 40 years of making the man who pays the fiddler



3 A.M. Earfuls and mouthfuls—Ford has had 11 years on WNEW.



4 A.M. Avoid record jag, says Ford. He strains to vary format.



5 A.M. Played out, the milkman soon plods home to sleep.

INDUSTRY Lives by the

INCH



Thirty-nine critical dimensions of an automotive crankshaft—all precisely inspected at a single glance in a matter of seconds. And with no opportunity for human error to confuse the result.

This is one of the end products of an idea born more than a decade ago in Sheffield Research. That idea was to use a stream of air to detect microscopic differences in the size of objects. As it has worked out, that basic idea with its many applications, has contributed greatly to Industry's ability to "live by the inch" more precisely and **MORE PROFITABLY.**

Without modern economical production equipment to assure interchangeability, both the mass production assembly line and today's replacement parts system would be impossible.

Industry lives by the inch.

Super Division, The Sheffield Corporation, Dayton 1, Ohio, U.S.A.



SHEFFIELD

pay the composer of the fiddler's music.

• **Musical Payoff**—ASCAP, a unique, nonprofit business organization, is what is known as a performing-rights society. The roots of its family tree are embedded in the dry legalisms of the U.S. copyright law of 1909, which establishes the right of composers and publishers to be paid whenever their works are performed publicly for profit.

(Technically, a performing right is a "little" right. So are a mechanical right, which applies to the recording of music, and a synchronization right, which covers the use of music in a film sound track. A "grand right," or dramatic-musical right, concerns the whole of the music in a show or skit, as originally produced.)

ASCAP is interested solely in the performing rights. When the weekend trio at the Step-Inn bumps its way through Stardust, Hoagy Carmichael, who wrote the music, is entitled to be paid. The Boston Symphony Orchestra performs the Firebird Suite, and Igor Stravinsky has a cut coming to him.

• **Collection Agency**—ASCAP collects the fees for these composers, as it does for the 2,842 other composers and authors (lyric writers) and the 565 publishers who have contributed the half-million copyrighted titles in the society's catalogs. (A copyright runs for 28 years, is then renewable for another 28 years. After that, the work passes into the public domain.)

ASCAP, then, could be described as a giant collection agency. It operates through a system of licenses, but it's a collections agency all the same. At the moment, it is a fairly tranquil giant. But it has had a battle-filled past.

I. Making the Fiddler Pay

Most of ASCAP's youth, and a good part of its adult life, has been spent in the courts. In the beginning, it had to fight for recognition and the protection of the copyrights of its members. Later, it had to defend its existence in a series of battles with the Antitrust Division of the Justice Dept.

The idea of a U.S. society to safeguard the rights of composers probably traces back to talks between Victor Herbert and Giacomo Puccini, when the Italian composer was in this country about 1910. It was Herbert who translated talk into action.

• **Piracy in Gotham**—In the early 1900s New York was a bounding main for music pirates. Cabaret and restaurant owners simply took the music they wanted, played it, and paid not a cent to the composers.

One night in 1913, while Herbert's show Sweethearts was on Broadway, the composer walked into Shanley's Restaurant, which stood where the

Paramount Theatre is now. The orchestra was playing music from Sweethearts, and Herbert lost no time in telling Shanley that under the copyright law, he—Herbert—had some money due him from a public performance for profit. Shanley countered by saying that no one paid an admission charge to come into the restaurant, that the music was only incidental, and that therefore the performance was not for profit. Herbert sued.

• **Hanging Together**—Herbert soon found he was up against a united front of hotel and restaurant owners, many of whom rushed to Shanley's defense.

Herbert and others decided the composers needed unity, too. On Feb. 13, 1914, they met at the Claridge Hotel and officially brought ASCAP into being. Among the 10 founders were Herbert; John Golden, the playwright and producer; George Maxwell, the music publisher; Gustave Kerker, who wrote the *Belle of New York*; Raymond Hubbell, composer of *Poor Butterfly*; Jay Witmark of the publishing house of the same name; and Nathan Burkan, who became ASCAP's counsel.

• **Court Blessing**—The Herbert suit dragged through the courts, losing each round until it reached the U.S. Supreme Court in 1917. In a unanimous decision written by Justice Oliver Wendell Holmes, that court decided that Herbert was right. The music was, indeed, played for profit.

"If the music did not pay," the court said, "it would be given up. If it pays, it pays out of the public pocketbook. Whether it pays or not, the purpose of employing it is profit, and that is enough."

• **Making It Stick**—It was certainly enough for ASCAP. The right of copyright owners to control public performances of their works was now clearly established. But impressing cabaret owners with the fact, and extracting performance fees from them, was something else. And this was exactly what ASCAP had been formed to do—no composer, acting as an individual, could possibly collect the money due him from the hundreds of places his music was played.

Month after month, the society went to court with new infringement suits. Costs far exceeded what was taken in. Not until 1921 did ASCAP make its first distribution of \$81,833 to its members. And then, suddenly, there was a new problem, the appearance of a phenomenon that was to become the greatest mass consumer of music in history. Radio arrived on the scene.

II. Age of Radio

At the start, while stations were digging their toes in, ASCAP charged nothing or only a nominal fee for play-

ing members' music (it followed this same practice years later when TV started). But when stations began to make money, ASCAP thrust out its palm. And the palm got slapped.

Said various station owners: "This is not public performance for profit. There's no audience in the studio." Or, "Radio doesn't broadcast music; it emanates electrical energy." Again there was a long, dry spell of litigation, until the Supreme Court once more decided the issue: The broadcast of music was public performance for profit; composers were entitled to fair fees for it.

• **What Is Fair?**—This settled a great deal in one sense, but little in another. From the start, there was hassling over what constituted a fair fee. As radio grew and profited, the hassels became more and more bitter. There were contract crises in 1932, when ASCAP first began to charge stations a percentage fee based on their gross time sales, and in 1935. In 1941, the lid blew off.

Probably not one person in 100 had ever heard of ASCAP until the great blackout, or what has become known as the era of Jeannie with the Light Brown Hair. Hopelessly deadlocked over contract terms (ASCAP wanted 74% of the networks' gross time sales), radio threw ASCAP music off the air, and went it alone, subsisting at the start mainly on works in the public domain.

• **Pyrrhic Victory**—For 10 months—from January to early November—hardly a wisp of ASCAP music was heard on the airwaves. When a pact was finally signed, ASCAP came off second-best. Though it won the right to collect at the source—from the place where music originates, instead of from the individual stations in a hookup—it was forced to settle for 24% of the gross intake of the major networks.

In the meantime, ASCAP had lost 10 months' revenue and now had to face a rival: Broadcast Music, Inc., which the radio industry had set up to fill the ASCAP void with its own stable of non-ASCAP composers.

BMI remains a healthy competitor today. Its catalog, both standard and popular, now includes about 132,000 titles. Many of them—*The Song from Moulin Rouge*, *Because of You*—are top hits.

III. In and Out of Court

Trouble is likely to come in batches, and for ASCAP it did. In the middle and late 30s, bitterness and organized pressure against ASCAP's ascending rates brought vigorous court and legislative action. Within a decade, Nebraska, Florida, Kansas, North Dakota, Tennessee, Washington, and Montana all passed laws aimed at restricting the society's activity. The Nebraska law,



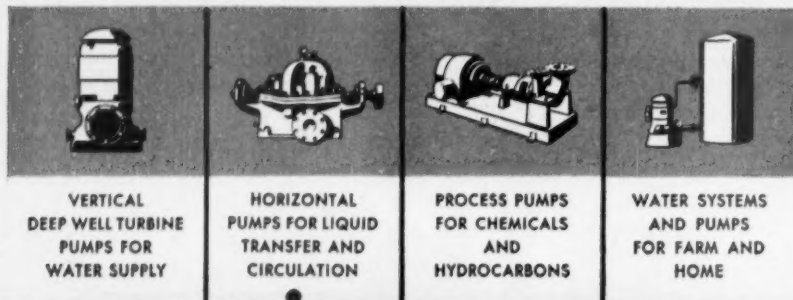
LIBRARY: At WNEW, Ford can pick from 60,000 records—ASCAP and BMI.

for instance, outlawed any combination that fixes the amount of money to be paid for public performance of music. It was up to each composer and author to collect the fees due him.

Most of these laws have now gone by the board, or simply aren't enforced. (The state of Washington, ASCAP says, is the only one in which it still has any trouble doing business.)

• **Federal Action**—Antitrust troubles plagued ASCAP, too. In 1941, Thurman Arnold revived a Justice Dept. suit of 1934 to bring a criminal antitrust

YOUR BUSINESS DEPENDS ON PUMPS

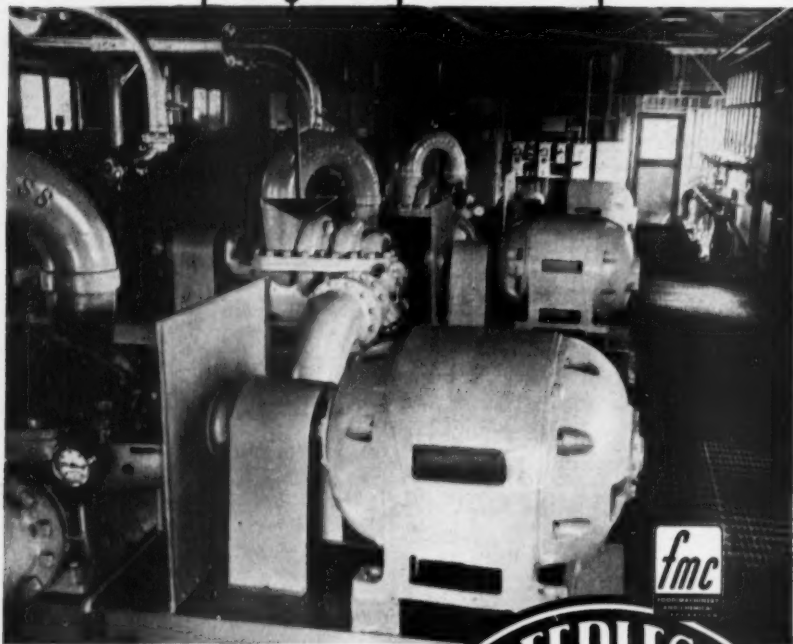


VERTICAL
DEEP WELL TURBINE
PUMPS FOR
WATER SUPPLY

HORIZONTAL
PUMPS FOR LIQUID
TRANSFER AND
CIRCULATION

PROCESS PUMPS
FOR CHEMICALS
AND
HYDROCARBONS

WATER SYSTEMS
AND PUMPS
FOR FARM AND
HOME



SAVES as it SERVES



HOW A PEERLESS FIRE PUMP PAYS FOR ITSELF OUT OF SAVINGS FROM LOWER INSURANCE RATES

The installation of a Peerless fire pump pays *two* ways. An approved fire pump not only affords the reliable protection you need against the hazards of fire, but also soon pays for itself out of the savings earned from lowered insurance premiums. Ask us to show you how the savings in insurance premiums pays for the installation in a relatively short time. Peerless fire pumps not only can be installed with plant

sprinkler systems but also are widely applied to foam systems. The heart of a modern plant protective system for fighting fire with foam is shown above. These multi-stage pumps are standing guard against the hazard of a spill of benzene in a naval stores plant. Write for a copy of Peerless Bulletin B-1500 which describes the complete protection afforded by an Underwriters' Approved Peerless fire pump.

PEERLESS PUMP DIVISION

FOOD MACHINERY AND CHEMICAL CORPORATION

Manufacturing Plants: Indianapolis, Ind.; Los Angeles, Calif.; Fresno, Calif. Offices: New York; Indianapolis; Chicago; St. Louis; Atlanta; Dallas, Plainview, Lubbock, Texas; Phoenix; Fresno; Tulsa; Albuquerque; Los Angeles. Distributors in principal cities. Consult your Telephone Directory

action against ASCAP under the Sherman Act. The charges: illegal pooling of copyrights to monopolize supply; discrimination against outside composers; restraining composers in their right to bargain for the sale of their own music.

Ultimately, ASCAP signed a consent decree, an agreement that went a long way toward shaping the way the society operates today.

ASCAP kept alive, but it no longer could act as the exclusive agent for its members; they could deal individually with users of music, if they preferred. A broadcaster was given the choice of using either a blanket license or paying for his music on a per-piece or per-program basis. The society's board of directors was shorn of its self-perpetuating powers. And the minimum requirement for a song writer to become a member was changed to the publication of one song, rather than the former prerequisite of five.

• **More Cases**—In 1947, Justice filed another suit, this time a civil action charging that the society was part of an international music cartel by virtue of its cross-licensing agreements with similar societies in 25 other countries.

In a consent decree signed in 1950, ASCAP was enjoined from holding and licensing the performing rights to foreign compositions on an exclusive basis.

A third consent decree, growing out of another suit and signed the same year, stopped ASCAP from collecting from theater exhibitors for motion picture performance rights (the producer of the film now pays for clearance of the performing rights of movie music), further restricted it in its licensing agreements with radio and TV, and required that the society parcel out its revenue to members primarily on performance basis.

IV. Who Pays?

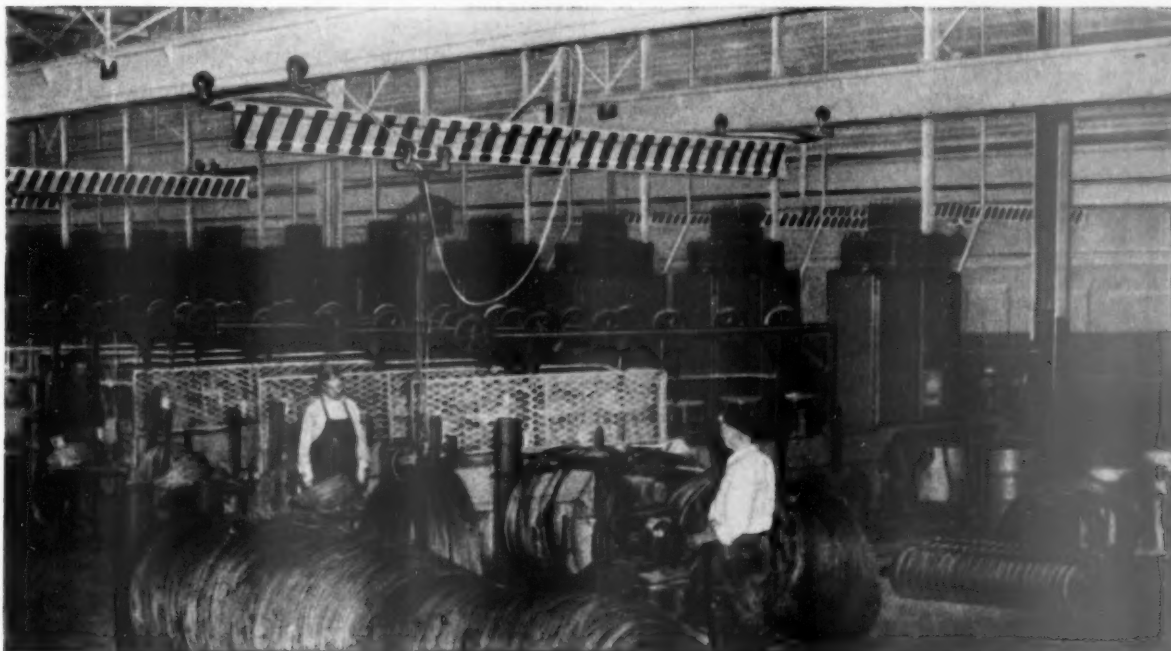
ASCAP today has upward of 20,000 licensees—including radio and TV networks and stations, hotels, ballrooms, skating rinks, movie theaters that use intermission music, lounges, wired music services—in short, practically every type of business that puts music into the air for profit.

• **Big Menu**—From each licensee, the society extracts a fee that's based on any of several formulas. Generally, the license is a blanket one, which means the establishment can use as much of ASCAP's catalog as it wants, as often as it wants to.

This amounts to a sizable musical helping. There are roughly 100,000 works in the society's catalogs that have had some degree of public performance; several of them—like Happy Birthday to You—are practically indispensable. Many of the songs were written by men whose names are now

"OUR ACCIDENT RATE DROPPED 75%" with Du Pont Color Conditioning

—DETROIT STEEL CORP., PORTSMOUTH ROD & WIRE DIVISION



The intelligent use of color means profit. Through a scientific approach to color selection, Du Pont Color Conditioning lowered eyestrain and fatigue . . . boosted production for Portsmouth Rod & Wire Div. of Detroit Steel Corp.

An actual case history where this scientific painting plan reduced accident rates...improved morale and production

Mr. Uno V. Johnson, Superintendent of the Portsmouth Rod & Wire Division, Detroit Steel Corporation, Portsmouth, Ohio, reports, "When we adopted the Du Pont Color Conditioning plan in the first quarter of 1951, our accident-frequency rate stood at 9.2. Our records for the same period during 1952 show that this figure has been reduced to 2.3—a drop of 75%. And the severity rate of these accidents has fallen from .90

to .37 . . . a drop of 59%.

"Our workers are certainly appreciative of the pleasant working conditions that have been accomplished and we have noticed that our employees take more pride in their work which reflects considerably in the quality and quantity of production."

Throughout hundreds of industrial plants, office buildings, hospitals, apartment buildings, schools, restaurants and

stores, the value of Du Pont Color Conditioning is being proved every day. Scientifically selected paint colors have a subtle but positive effect on the mind. They improve morale and efficiency . . . result in lower operating costs.

Color Conditioning costs no more than ordinary maintenance painting . . . less in the long run. Discover all the ways Du Pont Color Conditioning can pay off for you. Mail the coupon today.

New Free 32-Page Book! Find out how Color Conditioning can meet the specific needs of your plant. Get this new book, illustrated in full color. Mail the coupon today!

DU PONT PAINTS

*Chemically Engineered
to do the job better*



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Finishes Division, Dept. BW-1010, Wilmington, Del.
Please send me, at no cost, your new 32-page book,
"Du Pont Color Conditioning." I'm interested in
Color Conditioning for ☐ industrial plants; ☐ hos-
pitals; ☐ hotels and apartment buildings; ☐ schools;
☐ restaurants; ☐ stores; ☐ office buildings.
(Offer not good outside Continental United States)

Name _____
Title _____
Firm _____
Address _____
City and State _____

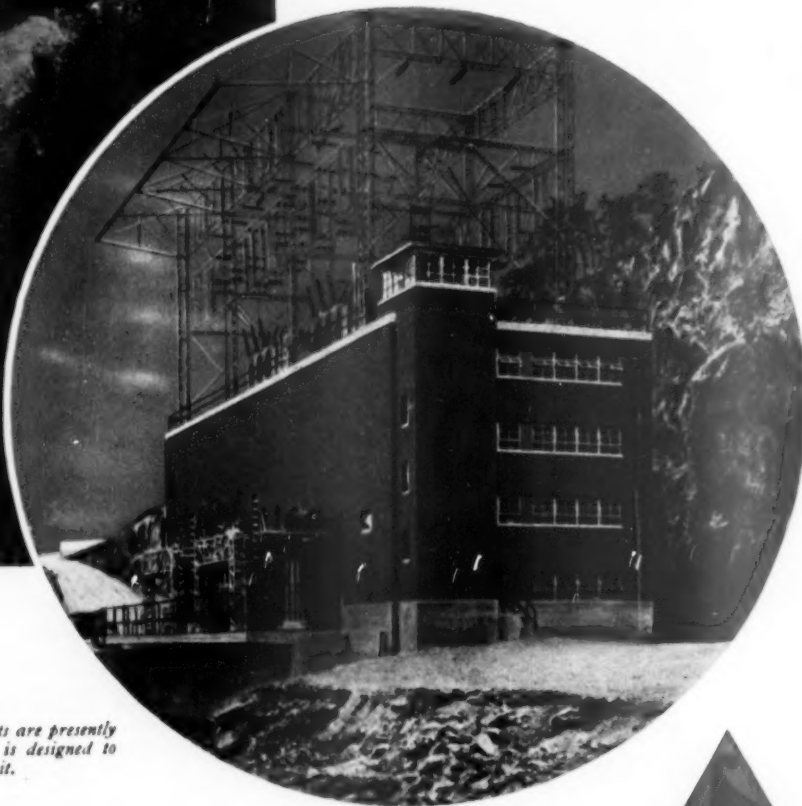


POWER FOR PAPER PRODUCTION

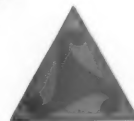
When Great Northern Paper Company needed more power for its operations in northern Maine, Stone & Webster Engineering Corporation was called on for consultation and recommendations.

The Corporation prepared a report, and subsequently designed and built the Ripogenus hydroelectric project on the upper Penobscot River. Water from a storage dam is brought downstream through a solid rock tunnel for 4000 feet to McKay Station.

The transmission line connection to the Millinocket plant and the required road work and bridges were engineered and constructed by Great Northern's own forces.



Two 13,500 kw units are presently installed. The plant is designed to house a third such unit.



STONE & WEBSTER ENGINEERING CORPORATION

A SUBSIDIARY of STONE & WEBSTER, INC.

bywords in American music—Irrving Berlin, George M. Cohan, Rudolf Friml, George Gershwin, Cole Porter, Richard Rodgers, Sigmund Romberg, Vincent Youmans, Otto Harbach, Oscar Hammerstein, Larry Hart.

• **Radio-TV**—The biggest single chunk of ASCAP's revenue—about 80% of it, in fact—comes from radio-TV. The trade paper Variety estimates that this year radio alone will pour close to \$9-million into the society's coffers, while TV, which is fast gaining on its sightless cousin, will add another \$5-million. The present radio contract, which is in effect through 1958, calls for the networks to pay 23% of their gross time sales to ASCAP; the rate for individual stations is 24% of their sales of nonnetwork time.

TV pays the radio rate, plus one-tenth more, the extra being based on the fact that both sight and sound are involved. TV contracts, however, expire the end of this year. Whether the present rate will stick in the new pacts isn't known yet.

• **Other Uses**—Beyond radio-TV, license fees—and the way they're computed—range all over the lot. Generally, though, they depend on the size of the operation and the amount of music used.

A hotel pays a percentage of its total amusement costs. One like the Waldorf-Astoria would probably pay the maximum rate of \$3,500 a year. Clancy's Spa, a small summer resort with dancing only on Saturday nights, might pay \$30 or \$40. Ballrooms pay a percentage of their boxoffice take; grills, a rate based on the size of the room, the number of people seated and other factors. Wired music services pay a percentage of their gross.

Technically, ASCAP could collect from bars that use radios for background music, but it generally doesn't bother to do it. ASCAP would very much like to get in on the silver that's gobbled up by juke boxes, but as coin-operated machines they're outside the 1909 copyright law. Before ASCAP can claim a cut, it will have to get the law changed.

• **Policing**—Though ASCAP's collection job is a great deal bigger than it was in its early days of 200 members, its buttonholing problems are a lot simpler. Time was when as many as 600 copyright infringement suits might be pending at once. Now there may be only 20 in an entire year.

ASCAP's 108-man field force—there are branch offices or representatives in all the 48 states, plus Hawaii and Puerto Rico—can now usually accomplish with a polite letter what used to take a summons to do.

Their main police action amounts to watching the newspapers for openings of new places that would be likely to

When's the Big Selling season in Pennsylvania?



NOW!
(and every month)



There's no slack season... just one big selling season after another. Month after month the Pennsylvania farmer takes something to market... a great variety of products to keep his income steady year in and year out.

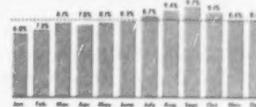
And, they add up to a big annual total to make Pennsylvania a top-third state in farm income. That means big buying power as well as through-the-years buying power.

Your surest way, your best way to reach and sell this high, steady-income group is via PENNSYLVANIA FARMER. It's read in the homes of 4 out of 5 of these prosperous farm folks. It's their home-state farm paper—serving them as no other can by bring-

ing interesting neighborhood news and practical farming tips.

Farmers in mighty few states have cash coming in all the time... and cash to spend all the time. But, along with Pennsylvania—Ohio and Michigan—are states with similar farm income patterns, served by THE OHIO FARMER and MICHIGAN FARMER. It will pay to investigate all three. Write B1013 Rockwell Avenue, Cleveland 14, Ohio.

(Percent Farm Cash Income Received Each Month)



Based on eight-year study of Pennsylvania Farm Income—1940 through 1947
(Government payments not included)

Advertise in PENNSYLVANIA where it's **PAYDAY** the year 'round!



Harrisburg, Pa.

THE OHIO FARMER, Cleveland, Ohio

MICHIGAN FARMER, East Lansing, Mich.



St. Louis utilities take the "big look"... plan to double generating capacity

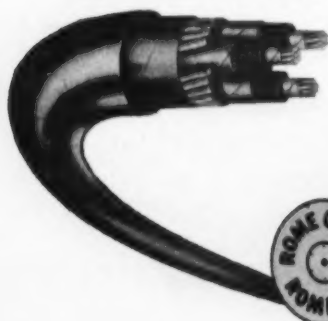
In St. Louis, as elsewhere, public utilities have taken the "big look" into the future.

Union Electric Co., for example, has upped its output from 900,000 kw. since the war. One of the ten largest private power companies generating over 1 million kw., it is shooting for 2 million during the next 15 years.

In this same area, Illinois Power Co. just completed a 150,000 kw. station at Wood River and an additional 100,000 kw. station is under construction.

Rome Cable, also, has taken the "big look." Since dependable power distribution calls for the best in cable quality, Rome has, from the beginning, equipped itself for completeness of service and maintenance of the highest standard of workmanship. Manufacture of both copper and aluminum conductors, from "bar to finished wire," makes quality control possible, step by step. One example is the ionization level testing of all cables rated at 3000 volts or over, to determine their behavior in service.

Such attention to details has made Rome Cable a major cable supplier in just a few years. Ask your electrical engineers to write for "The Story of Rome Cable."



RoMarine-RoPrene® all-purpose cable combines moisture and heat resistant RoMarine insulation with the RoPrene (Neoprene) sheath. This cable can be installed direct in earth or aerially. Underwriters' approved as Type USE.



ROME CABLE
Corporation
ROME, NEW YORK
TORRANCE, CALIFORNIA

use music. The next step, and usually the last, is a letter to the owner suggesting that he will probably want to take out an ASCAP license.

V. Who Gets Paid?

With the exception of what it costs to operate—and overhead normally runs in the neighborhood of 20% of gross—everything that ASCAP takes in goes out to its members. Half goes to publishers, half to composers and authors.

When a song writer joins ASCAP, he assigns to it the nonexclusive right to collect all performance fees due on his works. For this he pays dues of \$10 a year; a publisher pays \$50. Dues go solely to the support of needy writers.

• **Cutting the Melon**—The present system of dividing up the booty hews to the straight and narrow of the 1950 consent decree. The old method—which lumped composers and authors arbitrarily in one of 18 classifications—produced grumbling and discontent. The truth is, however, that no one close to the society can ever remember an open attack on its honesty.

The present method, a complicated formula that ASCAP took six pages to explain to its members, is based primarily on the number of times a composer's works are performed. An involved weighting process is used that takes into account current performances, performances over the last five years, and the composer's length of ASCAP membership. The classification committee can then make adjustments for composers of serious work—music that has "a unique prestige value which is not reflected by the number of performances."

Publishers are paid by a different formula, also based on performances.

The main check on how often a composer's works are played is the daily log that each network submits to ASCAP. To this record is added the results of spot monitoring by ASCAP's branches—to reflect the hillbilly and gospel music that ordinarily doesn't show up on the network.

Payments go out each quarter. For an Irving Berlin, a Cole Porter, or a Richard Rodgers, they may amount to \$50,000 to \$100,000 a year.

• **Administration**—ASCAP is governed by a 24-man board of directors, 12 writers elected by the writer members, 12 publishers elected by the publisher members. The entire board is set up for election every two years.

The board picks the society's president, who is now Stanley Adams, a 45-year-old lawyer-song writer who wrote the words to Little Old Lady. He is the sixth of ASCAP's presidents. The others: George Maxwell, Gene Buck, Deems Taylor, Fred E. Ahlert, and Otto Harbach.



What do ***Freight Cars*** tell you about a ***Railroad ?***

Every fast-rolling car of a highballing freight has an exciting story for men of all ages.

But it's a hard-headed business story for the seasoned Traffic Manager. *His* big concern is getting cars, *when he wants them.*

A significant measure of this car supply is — "How many freight cars does a railroad own per mile of road?"

In cars per mile of road — among the 130 Class I Railroads of the U. S. — Western Maryland stands eighth in rank.

Only seven railroads rank higher. And 122 score less than the Western Maryland.

Do you ask how this "Car-ability" can benefit you? It's easy to see, isn't it, that on *this* road there are cars on call? You don't have to "wait in line."

You ship when you want to, when you ship via

**WESTERN MARYLAND
RAILWAY**

St. Paul Place, Baltimore 2, Md.

*Important link in the movement of
heavy traffic East and West*



SHOW IN THE FOREST at Maramec Spring in Missouri Ozarks begins with choosing damaged tree for cutting. Then it comes . . .



CRASHING DOWN to be sawed up for lumber. Aim of show was to demonstrate good forestry practice and latest equipment.

Bringing Paul Bunyan Up



PORTABLE SAWMILL a farmer could use to cut his own timber and build barn.



HYDRAULIC LIFT, attachable to jeep for towing logs, was a hit of show.



DINOSAUR-LIKE loader gobbles up logs, finished lumber—even picks up automobiles.



MEN CAME TO LEARN newest ways of lumbering—there were farmers who have forest land, commercial lumber men big and small . . .



AND WOMEN, too, were there; they all spent two days watching logging and sawmilling equipment, finding out ways of . . .

to Date

(Story continues on page 148)



ONE-MAN TREE SAW attached to tractor will cut the tree down, then saw it up.



ANY WAY YOU WANT IT, this portable saw will slice up tree to suit your needs.

Make your gifts "CLICK"
with these
Sensational New
EVERSHARP
ADVERTISING
SPECIALTIES



An advertising message imprinted on an Eversharp Ball Point Pen serves as a constant reminder of your company and product. Eversharp's famous Kimberly cartridge doubles writing mileage. And refills are available in every city, town and hamlet throughout America.

Other Eversharp Pens from \$1.00 to \$30.00
Desk Sets from \$3.95 to \$72.50

For Further Information—Write
EVERSHARP, INC.

Advertising Specialties Division
1800 Roscoe Street, Chicago 13, Illinois



The Rhino whose middle name is **SAFETY**

Familiar to motorists, Tuffy the Rhino symbolizes the ruggedness, endurance and protection built into tires produced by the Armstrong Rubber Co. Since 1912, Armstrong has been one of the nation's leading producers of passenger, truck and tractor tires, as well as tires for the armed forces.

Today this family of fine products, featuring exclusive Rhino-Flex construction, is marketed in the 48 states, in Canada and throughout the world.

As is the case with companies in a variety of industries, the Armstrong Tire and Rubber Company of Natchez, Mississippi, Armstrong subsidiary, relies on the U. S. F. & G. organization for bonding and insurance coverages.

Whether you handle goods or make them; whether you sell a product or a service; no matter where you are or what you do, there are U. S. F. & G. coverages designed to meet your requirements.



Over ten thousand agents . . . there's one in your community.
Consult him as you would your doctor or lawyer.



CASUALTY-FIRE
INSURANCE
FIDELITY-SURETY
BONDS

United States Fidelity & Guaranty Company, Baltimore 3, Md.
Fidelity Insurance Company of Canada, Toronto



FUN FOR THE WOMEN—and for the crowd

Missouri Shows

Farmers and commercial lumber men from a dozen states—and at least two foreign countries—went to the Missouri Ozarks last week for a two-day demonstration of mechanized forestry in Maramec Spring Park, near St. James.

They went to see \$500,000 worth of forestry, logging, and sawmilling equipment in action in the woods—to learn the newest ways of lumbering, ways that save the forests but permit profitable lumber operations, too.

It was the first show of its kind in Missouri, the fifth to be held in the Central States (the others were in Ohio, Indiana, and Illinois).

• "Sugar"—The shows are a gimmick thought up by federal and state forestry officials to "sweeten" the educational work in better forestry methods they carry on by means of pamphlets, talks in schools, and similar means. But the 5,000 visitors to the Missouri show and the 47 exhibitors from 13 states liked both the "sugar" and what went with it.

Exhibitors expressed themselves as highly pleased. Because the Maramec Spring Park is a tax-free charity project (it's operated by the New York Community Trust in behalf of the James Foundation), no actual sales could be made on the grounds. But many new customers were lined up, some sales were made off the premises, and one chain-saw manufacturer picked up 23 new dealers.



—as champion McCall sisters of Bunker, Mo., show their skill on an "arm-power" saw; they were so good men wouldn't even compete

How to Cut It

(Story starts on page 146)

• **Sights**—The visitors came from as far away as Oregon in the United States, and from Canada and Turkey, but most, of course, were from the Central States. Each morning and afternoon a forester led visitors into a wooded area where a group of trees had been marked for cutting. That was the first part of the lesson—showing which trees should be cut out because they were "weed-trees," were fire-damaged, or were hampering growth of other trees.

From there on each demonstration went through operation of jeeps, tractors, lifting and hauling machines, saws, and on to crop-drying machines for "kiln" drying of lumber.

Farmers learned how jeeps and tractors can provide lumber to build baras, or make some extra cash from lumber economically harvested. Both farmers and sawmill operators were impressed with a sawmobile that can be hauled around in a truck, set up in a half hour, dismantled quickly, and taken off to another spot.

• **Verdict**—And the foresters? One of them summed it up like this: "We got in a lot of good missionary work. It was a wonderful show." And U.S. forester, Dr. F. G. Liming, in charge of the Northern Ozark Research Center, said: "With a little sugar, we can get our messages over to thousands, instead of the few hundred who would come out to see . . . a 'demonstration of better forestry methods.'"

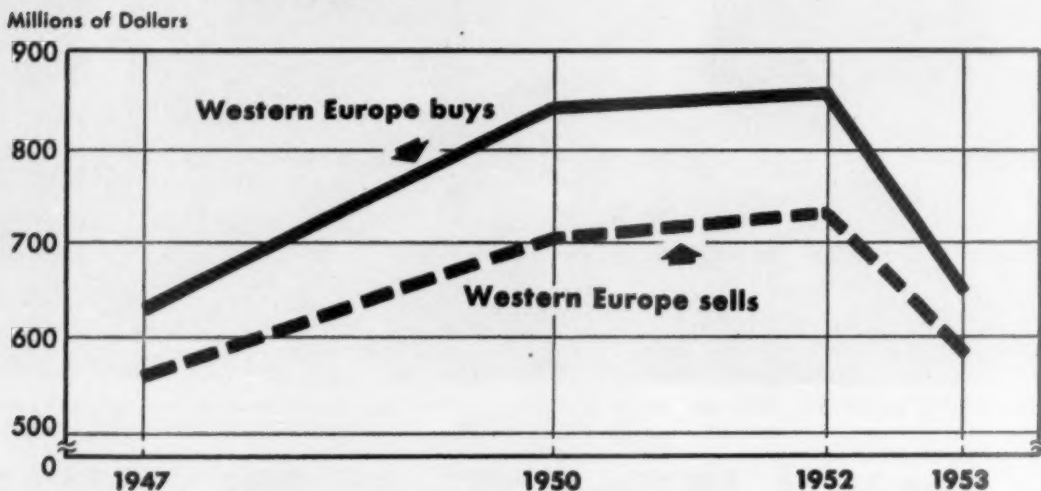


FUN FOR THE BOYS in logrolling contest—nothing political, just athletic.

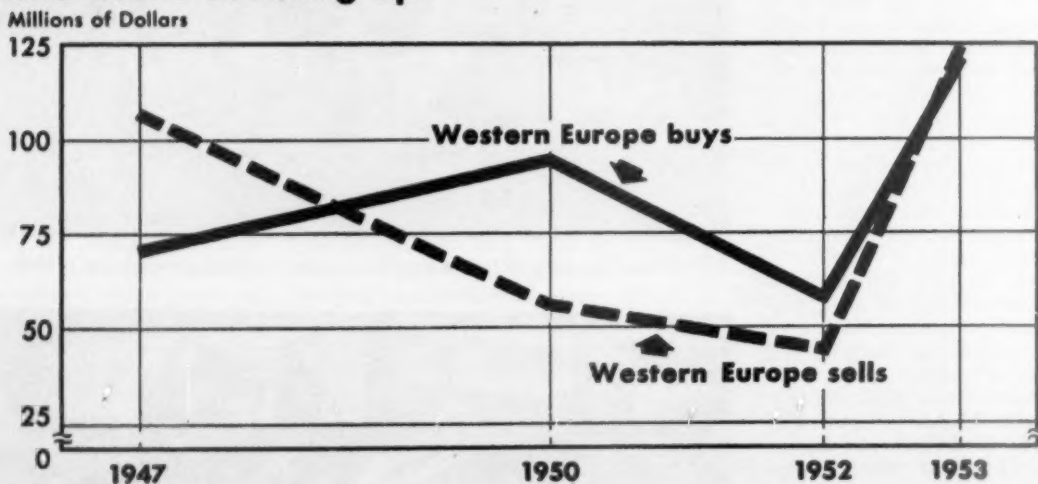


SHOW'S OVER, time to pack up—and it's been profitable for exhibitors, too; two visitors bought this sawmill and are dismantling it to take home with them.

U. S. doesn't much mind Western Europe trading non-strategic goods with Russia and its satellites. But trade is dropping.



U. S. Frowns on Europe's trade with China. And that's shooting up.



Data: Foreign Operations Administration

© BUSINESS WEEK

Now—a New Policy for the U.S.

Stassen comes out for continuing controls, making them flexible—and cracking down on smugglers.

East-West trade, especially Western Europe's trade with the Communist bloc, has bedeviled the makers of U.S. foreign policy ever since the Korean

war started. Two administrations—under Harry S. Truman and Dwight Eisenhower—have been pulled in opposite directions.

At home there's popular demand to shut off East-West trade; but abroad there's still pressure to let it expand.

In the U.S., Sen. Joseph McCarthy has spearheaded a drive to ban all trade with Communist China and to toughen the controls on trade with the rest of the Soviet bloc. In Western Europe,



Soften up tough design problems with VINYLITE flexible plastic compounds

When you need a flexible material that combines good appearance with long service life—pick VINYLITE Elastomeric Plastics. They're right for so many jobs because

They're FLEXIBLE to almost any degree, from soft and rubbery to semi-rigid... withstand long flexing without cracking.

They're HANDSOME... color in practically every shade... in transparent, opaque, or translucent form with lustrous finish.

They're DURABLE... non-fading, abrasion-resistant... deliver extra-long service.

They're RESISTANT to oil, most chemicals, corrosive atmospheres, greases, water, alkalis, sunlight, oxidation.

They're ADAPTABLE... can be molded in almost any variety of shades, used under a wide range of operating conditions... withstand temperature extremes from -67 deg. F. to 140 deg. F.

Learn more about VINYLITE flexible plastic compounds. Send for the illustrated booklet, "VINYLITE Extrusion and Molding Resins and Plastics." It's packed with technical data, typical applications and features such as the sections titled "Suggestions for the Design Engineer" and "Average Properties Tables." For your free copy, write Dept. SF-61.

BETTER HANDLE GRIPS for bicycles, lawn mowers, farm equipment, are molded of VINYLITE Elastomeric Plastics, providing:

- excellent detail and finish • improved wearing qualities • wide range of colors • warm, pleasant "feel" • resistance to water, sunlight, gasoline, perspiration • tight fit on handle.

BETTER VACUUM CLEANER PARTS, such as bumpers, elbows and handles, are molded of VINYLITE Elastomeric Plastics to get these features:

- long-lived flexibility • lightweight • colors resistant to fading and bleeding • toughness • superior finish • abrasion resistance.

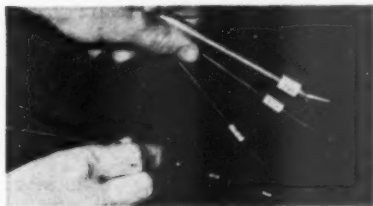
Vinylite
BRAND
PLASTICS



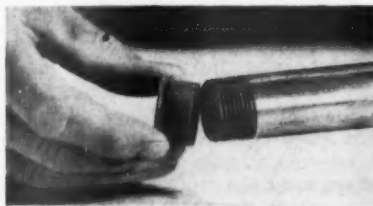
BAKELITE COMPANY

A Division of
Union Carbide and Carbon Corporation

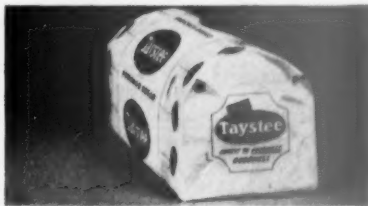
30 East 42nd Street, New York 17, N. Y.



PERMANENT LEGIBILITY is assured by tags laminated of BAKELITE Rigid Vinyl Sheets. Virtually any combination of print and color is available. Polished and "write-on" finishes can be provided on the same tag. By Duramark, Inc., Fort Washington, N. Y.



TOUGH, FLEXIBLE caps and plugs, made of BAKELITE Polyethylene protect pipe threads, tubing ends, etc., seal out dust and moisture. Applied by pushing in or on both threaded and plain circumferences. By CaPlugs Div. of Protective Clo-
sures Co., Inc., Buffalo, N. Y.



HIGHER GLOSS, brighter colors mark food wrappers whose wax coatings contain BAKELITE Polyethylene Resins. This wax-resin blending also affords better heat seal, greater tensile strength. Wrapper by Pollock Paper Corp., Dallas, Texas.

AMERICAN INDUSTRY IN THE NETHERLANDS



Minneapolis-Honeywell Picks Holland as Base For Overseas Production

Mr. H. W. Sweatt, President of Minneapolis-Honeywell Regulator Company, which has recently joined the growing list of American companies to establish manufacturing plants in the Netherlands.

Recognizing the need for a constructive approach to the increasingly important problem of maintaining export volume to non-dollar countries, Minneapolis-Honeywell Regulator Company recently decided that the solution lay in the establishing of manufacturing operations overseas.

After a study of the advantages offered American investment capital by various European countries, Holland was selected.

"Among the considerations that prompted the choice of Holland," said Mr. H. W. Sweatt, president of Minneapolis-Honeywell, "were the availability of capable workmen; a stable and practical-minded government; fine reputation of Dutch-manufactured goods throughout the world; the familiarity of Holland with exporting."

Background of Government Policy

The "practical-minded" attitude of the Dutch government referred to by Mr. Sweatt is a direct and logical outgrowth of the social conditions existing in the Netherlands. Rapid population growth has created surplus labor which cannot be absorbed by agriculture or existing manufacturing industries.

For this reason, the Dutch government has embarked on a policy of attracting capital from other countries by arranging liberal facilities for the transfer of profits and retransfer of original investments, in dollars.

In addition to the friendly and cooperative attitude of the Dutch government, the labor situation in the Netherlands has been a major factor in attracting American capital. Dutch workers are particularly adept at acquiring the new skills required for a wide range of manufacturing operations, including precision work and the assembly of complicated mechanisms.

Production interruptions caused by strikes are almost unknown. In 1951, manhours lost by strikes av-

eraged only one out of 20,000—the lowest figure in the world. Absenteeism is comparatively rare.

Market Potentials

The Dutch government has also maintained a consistent policy planned to facilitate the profitable export of Dutch-manufactured goods to other countries.

Trade agreements among the Benelux group permit export of finished goods to Belgium and Luxembourg without trade barriers. Trade with other countries is facilitated by the *European Payment Union* (E. P. U.). The sound monetary policy of the Netherlands is another contributing factor.

Economical transportation plays a large part in the profitable marketing of goods. The country's famous network of canals allows easy shipment of materials within Holland; large rivers handle waterborne commerce with other European countries. Excellent seaports with modern facilities simplify shipment to other parts of the world.

Roads, railroads and airlines also link the Netherlands with inland Europe and other areas.

Information Readily Available

To assist American industry in evaluating the industrial potentialities of the Netherlands, the Dutch government has assigned a single organization—the Netherlands Industrial Institute—to act as the sole agency in the United States for disseminating information and to aid in planning.

A 48-page book, "Industrial Possibilities in the Netherlands," gives full information on the country's industrial background; its current facilities for supplying raw materials and the simple regulations under which American industry can build and operate plants. Interested executives may obtain this book from Mr. Joseph P. Bourdrez, Gen. Mgr., Netherlands Industrial Institute, Room 48, 1-M-C, The Biltmore, N. Y. 17, N. Y., LExington 2-5069.

business pressure on allied governments to relax controls on strategic shipments has mounted steadily in the past year, especially since the Korean armistice.

These opposing political pressures have put a real strain on the Western alliance. At the same time, they have kept the U.S. from forming a clearly defined policy on East-West trade.

• **New Policy**—Now the Administration has taken the bull by the horns and set forth a firm—though middle-of-the-road—policy. In a report to Congress last week Harold Stassen, Director of the Foreign Operations Administration, tried to get the issue out of the political arena and to remove interlarded friction on the subject—though without giving way at all on controls over strategic shipments.

The Stassen report cut two ways:

• Stassen takes issue with the McCarthy view that all trade with the Soviet bloc is bad. The report stresses that the over-all political, economic, and military strength of the Western alliance is more important than East-West trade in nonstrategic items or even a few isolated trade deals with Communist nations in strategic goods. It recognizes that many U.S. allies depend heavily on foreign trade and can't afford to pass up markets or sources of supply anywhere. What's more it repudiates any attempt by the U.S. alone to throttle East-West trade.

• Stassen pooh-poohed the belief growing abroad that Western strategic controls are cutting allied nations off from vast, profitable Eastern markets. The real reasons for the sharp postwar drop in trade with the East, says the report, are the Kremlin's drives for absolute control of the Communist economic system and intensive industrialization of the satellites—and the ponderous inflexibility of state-controlled economies.

What actually emerged from the Stassen report is a four-point policy on East-West trade:

The U.S. will continue to seek allied backing for curbs on strategic trade with the Soviet bloc as a checkrein on its military buildup. But:

• Washington will use a more flexible yardstick in judging what trade with the East is harmful.

• The U.S. will put more emphasis on enforcing existing controls, less on trying to set up new ones.

• The U.S. won't discourage allied trade with Russia and Eastern Europe in nonstrategic goods. The Administration feels that on balance Western Europe gets as much from this trade as does the Soviet bloc.

• The Administration will make a distinction between Red China and the rest of the Communist camp.

U.S. officials think Mao is in desperate need of Western goods—both



“Fired? I quit!”

Read how banks helped farm machinery replace the horse.

Give the grey mare above a carrot for horse sense. She retired knowing full well that only a stubborn mule would try to compete with any breed of 1953 tractor.

Today most American farmers (along with a good many farmers abroad) burn gas instead of oats to get their horsepower. Thus the mechanical marvels turned out by America's farm machinery manufacturers have been put to work around the world. In less than 50 years their inventive genius created machines and implements that have stepped up the plowman's daily "turnover" from 2 to more than 30 acres.

Bank money helped

But without *banks* things might have

been a lot different down on the farm.

From the early steel-wheeled monsters to the most modern hydraulic-lift beauties, banks have helped manufacturers turn out faster, tougher, easier-to-use farm machinery.

How?

Well, bank loans help tractor and implement companies right down the line—stocking raw materials, accessories—gearing assembly lines to new models—freeing working capital for development and research. On the marketing level, bank loans help finance dealers, and come full circle by helping individual farmers buy tractors and implements.

What this means to you

Add all this up and you only need half a squint to see that commercial banking hoes a long row in the manufacture and distribution of the ma-

chinery used by American farmers to grow and harvest some of the biggest, most bountiful crops in the world.

This is true because of one grass-roots fact: *It's competitive banking's job to make the community's idle funds available whenever and wherever business finds opportunities for profitable enterprise.*

It follows, as reaping follows sowing, that under these conditions there are jobs for men and women, returns for investors, and a rich harvest of material advantages for Americans, rural and urban.

Chase National Bank is proud of the part it is playing in American progress.

* * *

The CHASE National Bank
OF THE CITY OF NEW YORK
(Member Federal Deposit Insurance Corporation)

3 Business Transactions Your Wife Should Know About

Insurance and wills—two subjects you discuss with your wife as business transactions. Because treating them as such is the intelligent approach. Perhaps you haven't (as yet) realized it, but there is a third transaction the thoughtful family man also should settle before the need—selection of your cemetery lot and family monument. Discuss it with your wife. And like insurance and wills, the sooner the better, for many reasons.



Why Choose Your Family Monument Now?

- Purchase is made out of income—not out of capital originally intended to care for survivors.
- When purchased prior to death, your lot and monument are usually free from inheritance taxes.
- Hasty decisions—as well as a lonely task for your loved ones—are avoided.
- You personally select the monument that best portrays your family character. Monument and cemetery plans can be made together.
- The satisfaction that comes from doing things together . . . peace of mind for you and your family.

Rock of Ages will be glad to send you its free booklet "Before The Need Arises . . .". It tells of the many advantages you and your family will gain by completing this important third transaction now.



Just fill in and mail this coupon

Rock of Ages

104 Granite Way, Barre, Vt.

Please send free copy of "Before The Need Arises . . ."

Name _____

Street _____

City _____ State _____

nonstrategic and strategic—to carry out his plans for industrialization. So the U. S. will continue to press for tougher curbs on trade with China until Mao proves that he has dropped his expansionist plans. But there won't be any U. S. ultimatums to Western Europe on this issue; the unity of the Western alliance will be given precedence over the issue of China trade.

• **Clearing the Air**—There's nothing radically new in this policy, but it's been put down in black and white for the first time. And that's already helped to clear the air between the U. S. and its allies.

Still, the tugging and hauling within the Western world over East-West trade is bound to go on. That trade is now expanding in just the area—mainland China—that the U. S. likes least. During the first five months of 1953 Western Europe's trade with Red China shot way up (charts, page 150). That was when the strategic controls were still in effect. Now there's growing pressure in Europe to scrap these controls. Some 200 British businessmen gathered in London last week to demand just this.

Meanwhile, Western Europe's trade with Russia and its satellites has been dropping. For the first five months of this year, it was well below the 1952 level. The trade deals Moscow has made in Western Europe recently may push the year's total up. Even so, this trade isn't likely to give Washington any headaches this year.

• **Smugglers**—Now the Administration's new emphasis on enforcing controls over East-West trade means stepping up the war against smugglers from Oslo to Hong Kong.

Stassen's report for the first time raised a corner of the curtain of secrecy that has blanketed this underground struggle. It reported cloak and dagger incidents like these:

• **Weapons** . . .—Last August a posse of Thai police waited in the dripping jungle dawn on the Thailand-Laos frontier. An automobile churned toward them along the mud-mired road. The posse opened fire. The four occupants of the car surrendered. In the back of the car were two bazookas, a mortar, a gun, seven grenades, two complete field transmitters and receiving sets—bound for Ho Chi Minh's Communist guerillas in Indo-China.

• . . . **And Wax**—A thousand miles to the East about the same time a British navy patrol boat prowling through the Lamma channel off Hong Kong sighted two suspicious-looking vessels. One of them, a PT-type craft, made a dash for the China coast. The British opened fire, and the boat hove to. Its hold contained 317 boxes of paraffin wax, 670 boxes of tin plate, 256 bundles of hoop steel, 107 bundles of iron sheets—

which are all highly strategic materials.

Across the world in the free port of Copenhagen, a few months earlier, a cargo declared to be alloy steel was being unloaded for transshipment to Rotterdam. One case toppled to the wharf and broke open. The Danish port official immediately ordered the whole cargo confiscated. The shipment was high-grade nickel used in gun barrels and ammunition, not alloy steel, which is of much less strategic importance. Police of four nations are working on the case on suspicion that the nickel was bound behind the Iron Curtain.

• **Price of Victory**—And so the trade war goes on. Smugglers use one set of weapons: forged documents, bribery, razzle-dazzle shuttling of contraband cargoes from ship to ship and free port to free port. The law uses a complicated system of international import and export licensing, international agreements on endless lists of embargoed goods, international agreements on ship chartering and bunkering controls. To gain even partial victory, the West must have tight cooperation among allies and unremitting vigilance among customs men and a host of other officials.

BUSINESS ABROAD BRIEFS

U. S. investments in foreign enterprises that are controlled by U. S. interests stood at \$15-billion at midyear, according to Commerce Dept. figures just released. That's \$3.2-million higher than in 1950, doesn't include any investments in foreign-controlled projects.

• **Armour Research Foundation** of Illinois Institute of Technology, Chicago, moved into Uruguay. Last week three Armour experts headed south to conduct a technological audit. They'll study ways to expand present industries in Uruguay and introduce new ones.

• **Ireland and Japan** moved to up their sales to the U. S. This week the Irish Export Promotion Board opened a New York office to explore the U. S. markets and advise Irish producers on how to get their share. . . . Next month Japan's Trade Promotion Council, a private but government-backed group of 40 trading firms and 10 local governments, will do the same thing in the same city.

• **Knapp Mills, Inc.**, New York lead products firm, formed a Mexican subsidiary, Knapp Mills de Mexico, S. A. The new company will work under a contract with a Mexican lead products firm, A. Valezzi Sucs., S. A. Knapp will supply its formulas and know-how, will get exclusive distribution rights for its products in Mexico and the U. S.

Reductio ad optimum



U-S-S CARILLOY electric-furnace aircraft quality steel meets every requirement for these vital parts. The precision machining and expert heat treatment it gets at Cleveland Pneumatic Tool Company complete the job.

● "Reduced to the most favorable degree" describes exactly what happens to the huge U-S-S CARILLOY steel ingots from which are formed the rugged main columns in the landing gears of every B-36.

To provide the tremendous strength and shock resistance required to safely cushion the landing impact of 179 tons of bomber weight—and, at the same time, to keep the weight of the landing gear as low as possible—calls not only for steel of the highest quality but also for unusual procedures in fabrication as well.

Consider these facts. The original ingot weighs approximately 37,500 lbs. From it are produced two cylindrical columns weighing only about 1200 lbs. apiece. Approximately 93% of the steel is removed by machining

to proper contour and in hollow-boring the column. When finished, a mere 7% of the original ingot is left to do the job.

That U-S-S CARILLOY steel has been exclusively selected for this application—one of the most exacting in the aircraft industry—is, we believe, highly significant. The same care and skill, the same ability to meet requirements that are beyond the ordinary, go into every order of CARILLOY steel you place with us—whether it's an ingot of giant size or a few tons of special steel.

If you have a steel problem that's bothering you, give us a chance to help you find the most economical and practical answer to it. Simply write United States Steel Corporation, Room 2817-B, 525 William Penn Place, Pittsburgh 30, Pa.



UNITED STATES STEEL



4,000,000 PER DAY

MOST MODERN LABEL PLANT IN AMERICA
Complete air conditioning and high speed, automatic equipment give us the edge—**BETTER quality, FASTER delivery and ATTRACTIVE price** on practically any flat paper label. Send your specifications for our proposal.
KALAMAZOO LABEL CO., 301 W. Ransom, Kalamazoo, Mich.

FOR INVESTORS:

We factually measure the effect of
BUYING POWER vs SELLING PRESSURE
The forces controlling trends!
Send \$1 for latest Report BW covering present situation
LOWRY'S REPORTS, Inc.
250 Park Ave., New York 17, N. Y.

JUST OFF THE PRESS!
1954 Edition of
"EXTRUDED PLASTICS"
12 PAGE ILLUSTRATED BROCHURE
Written for Busy Executives
REQUEST COMPLIMENTARY COPIES FROM
ANCHOR PLASTICS
Co., Inc.
36-36 36th Street Long Island City 6, N. Y.

WANTED
BUSINESS ADMINISTRATION GRADUATE
with chemical industry cost estimating experience for planning team of well established, growing company. This man will (1) have proved himself in his present job; (2) be looking for additional responsibility; (3) be between 20 and 45. Resume held in confidence.
P-9411, Business Week,
230 W. 42nd St., New York 36, N. Y.

BUSINESS OPPORTUNITIES

may be either offered to, or solicited from America's management men through **BUSINESS WEEK'S** own classified advertising section . . . "clues"

Schuman Plan Steel Drops

**Production fades on Continent as Britain's rises . . .
Brazil fights inflation . . . Mexico bids for more electricity . . .
And Paris autos "soar."**

Steel production in Western Europe has fallen off badly since May, when the Schuman Plan nations—Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany—put into effect their common market for the metal. The United Nations Economic Commission for Europe finds that production for those six countries in July (the last month for which complete figures are available) was at an annual rate of 3-million metric tons below the rate for the last six months of 1952.

The worrisome thing to the Community's High Authority is that production in Britain, Western Europe's big steel producer outside the plan, is running way ahead of last year. Second-quarter production was at the rate of 18.2-million tons a year, compared to 16.4-million-ton rate last year. And output in August was at an all-time high for the month.

Most representatives of the steel industries within the Schuman Plan admit the drop is not to be ignored, but they don't feel that there's anything basically wrong with the common market. They say it's just that buyers are holding back, hoping for a cut in prices. And they think this lag in buying will end soon: Buyers are nearing the limit of their stocks, there has been no decline in the underlying demand for steel.

Brakes on Brazil

Brazil's new finance minister, Oswaldo Aranha, is struggling manfully to put his country's fiscal house in order. Now he has prescribed a nine-point rest cure, to restrain the wild-running, inflation-wracked Brazilian economy.

The key remedies, which may cramp the style of many a bullish Brazilian, call for a slowdown in the pace of industrialization and private building, reduced government spending, increased taxation, an attack on the high cost of living. Aranha wants especially to discourage speculation, see to it that capital is channeled into retarded areas, especially agriculture. He aims to put Brazil's external trade in balance—and that means maintaining the rigorous import curbs that have so far this year pared Brazil's U.S. buying by about 50%.

As for the troublesome backlog of commercial debts abroad, one of Bra-

zil's top monetary men said last week in New York that the dollar backlog ought to be wiped out by yearend. Jose Maciel Filho, director of Brazil's national development bank, reported that debt arrears have been reduced by \$250-million since Jan. 1. He served notice that all nonessential imports will be drastically controlled.

As for essential imports, Maciel Filho had some good news to take back to his government. He reported that a \$40-million World Bank loan, to finance rail and power equipment purchases abroad, had just been concluded, along with a special \$18-million Export-Import Bank credit to finance tractor buying in the U.S.

There's no telling, of course, how Aranha's tough program will take hold. Certainly Americans, deeply troubled by Brazil's financial difficulties, are applauding from the sidelines. But their enthusiasm is dampened by the fear that politics will interfere.

For example, the greatest single drain on Brazilian resources is oil imports, running at well over \$200-million yearly. Yet the Chamber of Deputies in Rio de Janeiro has stubbornly refused to allow a realistic petroleum development policy. Instead, this week President Vargas signed a bill creating a rigidly nationalistic government oil monopoly that few outsiders give any chance of success (BW—Sep. 26 '53, p168).

Mexican Power Deal

U.S. and other foreign utility companies have long been unsatisfied with the deal they get in Latin America. They have seen currencies depreciate, whittling down the value of their capital investments; too often, they have had trouble getting their profits out and keeping rates in line with rising costs. And, as in Guatemala today, they have at times faced the threat of expropriation.

Now one country in the area—Mexico—is showing signs of a more realistic attitude.

Last week it settled, at least temporarily, a long-standing rate and profit dispute with the biggest foreign utility—Mexican Light & Power Co., a Canadian-registered, mostly Belgian-owned firm, and it's close to a new deal with

ALEMITE OIL-MIST

extends bearing life 11 times!

Steel Maker saves

\$220 per Week.

Eliminates Lubrication Downtime

High-speed bearings on a key production machine burned out regularly—week after week. Tedious hand lubrication, man-hours for repairs, machine downtime, and cost of new bearings piled up. To end this expense, the company turned to Alemite—installed Oil-Mist equipment costing little more than a hundred dollars. Result: A savings of \$220 in the first week. Today—after 11 weeks of operation, the bearings show no sign of wear; only 3 ounces of oil are used per shift where a pound and a half of grease were required before!



Facts prove

this "**Friction Fighter**" most efficient, continuous, fully automatic lubrication system

Again, Alemite proves world leadership in lubrication with Oil-Mist, the system that atomizes oil into mist—distributes it through tubing to bearings—bathes all bearing surfaces with a cool film of clean oil. Amazingly efficient, the lubricator has no moving parts—and, the human element in lubrication is removed.

Thoroughly tested in countless applications throughout all industry, Oil-Mist—as facts prove—uniformly maintains oil film on plain and anti-friction bearings, gears and chains despite variations in load, temperature or speed. Don't you owe it to your business to learn all about Alemite Oil-Mist—today?

ALEMITE OIL-MIST Lubricates All Types of Mechanisms

Chain

Gear Cases



Anti-friction



Gears



Plain

Alemite OIL-MIST Lubrication

Compare all these OIL-MIST advantages with ordinary methods!

- Reduces bearing temperatures as much as 20%.
- Continuous, uniform lubrication of all types of bearings.
- Air pressure seals bearings against dirt.
- Reduces oil consumption—up to 90%.
- Prevents product spoilage.
- Eliminates guesswork—each bearing picks up as much Oil-Mist as it needs.
- Reduces starting and running torque.

Get the facts NOW!

Alemite, Division of Stewart-Warner, Dept. B-103
1850 Diversey Parkway, Chicago 14, Illinois

- ☐ Please send me a FREE copy of your new and complete Oil-Mist Catalog.
- ☐ Please have your Alemite Lubrication Representative arrange a desk-top demonstration of Oil-Mist. This entails no cost or obligation on my part.

My name _____

Title _____

Company _____

Street _____

City _____

State _____





and another sagging market gets a boost from . . . General Packaging Laboratories

Quincy Stove Company, Quincy, Illinois, faced an actual drop in sales when their Monogram Oil Heaters started arriving at dealers' in a damaged condition. They presented their problem to General Box Company Engineers. Results:

- A Watkins-Type container, specifically designed to withstand heavy punishment and meet Pre-Tested Safe Transit Standards, was developed.
- The product itself was tested on General Box Company's exacting laboratory equipment; improved design corrected cause of failure.

In the three years since the changes were made, Quincy Stove Company's damage in shipment claims have totaled less than \$200.00. This is only one among many packaging problems solved every day—at a saving—in General Box Company's two fine Industrial Packaging Laboratories.* Let us help *you* cut packing and shipping costs. Write today for full information.

Find out how other manufacturers are cutting packaging costs. Write for your free copy of "The General Box."



General Box Company Laboratory facilities are certified to make "National Safe Transit" tests.

General Box COMPANY

1805 Miner St.,
Des Plaines, Ill.

Factories: Cincinnati; Danville, N. J.; Detroit; East St. Louis; Kansas City; Louisville; Milwaukee; Prescott, Ark.; Sheboygan; Winchendon, Mass.; General Box Company of Mississippi, Meridian, Miss.; Continental Box Company, Inc., Houston.

Engineered Shipping Containers for Every Shipping Need
Wirebound Crates and Boxes • All-Bound Boxes • Generalift Pallet Boxes • Cleated Corrugated and Watkins-Type Boxes • Corrugated Fiber Boxes • Stitched Panel Crates

American & Foreign Power Co., Inc., the big U.S. interest there.

The Mexican government guaranteed Mexican Light a yearly profit of 8% after taxes and made permanent a temporary rate increase awarded it a year ago. It also gave the company a three-year, \$21-million loan for expansion.

There are two reasons why Mexico took this step. In the first place it wants and needs U.S. capital to carry out its industrialization* program, figures this show of good faith will up its credit rating. The second reason is even more obvious—a severe shortage of electric power throughout the country. Mexican Light and American & Foreign Power are the only utility companies there capable of curing this shortage, but they have held back pending a better rate schedule.

The new agreement should go a long way toward satisfying both these motives. But one vital ingredient is missing: Most investors won't be completely sold until they are convinced that devaluation won't cut the value of their capital.



Auto Show Aloft

Time was, say the old Paris hands, when the upper reaches of the Eiffel Tower were the only retreat from the city's frantic traffic. But now even that haven has fallen to the automobile.

Last week, by means of a specially installed elevator hoist, this Simca station wagon was hauled to the first-floor platform of the Tower, where an auto show is in full swing. The show is part of the Paris Automobile Exhibition, an annual affair held (at ground level) in the Grand Palais.



UNDERSEA LINK IN A WORLD-WIDE CHAIN

Off-shore loading of oil tankers is necessary in many parts of the world because port facilities are not available. To provide a pipeline for this operation, long undersea hoses are laid along the bottom to link ship and shore for pumping oil.

Helping to bring oil from the far corners of the earth and distributing its refined products is another job for Hewitt-Robins industrial rubber hose. For we have pioneered in the development of many of the specialized types of hose that meet the particular requirements of transporting and distributing oil and petroleum products.

Today, throughout the world, you will find Hewitt-Robins petroleum hose at work loading and unloading ocean-going tankers, railroad tank cars, river barges and highway bulk trucks. Other specialized hoses feed fuel to automobile gas tanks and supply fuel oil and LP gas to homes, farms and industrial plants.

Transporting and distributing the world's oil and its refined products is but one of the countless ways in which Hewitt-Robins industrial rubber hose serves industry. If you have a problem handling liquids or gases, call on Hewitt-Robins for the right hose answer.

HEWITT  ROBINS

Executive Offices, Stamford, Connecticut

DOMESTIC DIVISIONS: Hewitt Rubber • Robins Conveyors • Robins Engineers • Restfoam

FOREIGN SUBSIDIARIES: Hewitt-Robins (Canada) Ltd., Montreal • Hewitt-Robins Internationale, Paris, France • Robins Conveyors (S. A.) Ltd., Johannesburg • **EXPORT DEPARTMENT:** New York City.



THE HAND WITH EYES ON **150,000** PARTS

Your NECA Qualified Contractor is the specialist in your area familiar with all electrical equipment. He's the experienced hand with the practiced eye. He knows the supply . . . knows when specific items are due on the job . . . knows how to buy . . . knows how to apply the exact parts to create the most electrical efficiency for the least cost. Because he has his fingers on the pulse of nationwide supplies through the

pooled knowledge of the National Electrical Contractors Association, you can rely on him to see your job through.

Look for the man who displays the NECA seal, next time you need an estimate on electrical service. It's good business!

Ask your local NECA contractor for a written guarantee on workmanship and materials.



**THE SEAL
THAT SYMBOLIZES
ELECTRICAL
SATISFACTION**

NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION, WASHINGTON, D.C.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

OCT. 10, 1953

A BUSINESS WEEK

SERVICE

It's hard this week to see the forest for the trees—the air is so full of talk about the H-bomb (page 39) and about East-West negotiations.

But when it comes to international affairs you can figure that:

- The H-bomb has given new urgency to U. S. efforts to find some way of reaching a settlement with Moscow (BW—Oct. 3 '53, p161).
- Despite the urgency in Washington, it will be months before East and West sit down to talk things out.

Right now Washington is mainly concerned with making Moscow show its hand on Germany. This is in line with Eisenhower's view that piecemeal settlement of specific East-West conflicts must come first. Only then will it be possible to come to terms on over-all problems like disarmament.

U. S. officials are working this week with their British and French colleagues to draft a reply to Russia's last note on Germany—the one that turned down the West's invitation to a conference at Lugano this month.

And this time the U. S. may inject a new theme into the German question: a guarantee for Russia against future German aggression.

Up to now the U. S. has insisted that German talks be limited to the question of unification. But several times recently Secretary of State Dulles has referred publicly to security for the Soviets.

In fact, State has been working on a proposed German settlement that covers the guarantee problem explicitly. These are the main points:

- Withdrawal of Russian troops from East Germany.
- Free elections for an all-German government.
- A Western guarantee for Russia against any new German aggression or any Western attack launched from German territory. Additional assurance might be offered the Kremlin in the form of a neutralized border zone in East Germany.

Germany's eastern frontier would be left open for future negotiation. The status of the satellites also would be left open.

Washington isn't too optimistic that this new approach will induce Moscow to discuss Germany in a four-power Foreign Ministers' meeting. There's a feeling that the Kremlin won't talk until its troubles in Eastern Europe grow worse than they are now.

But the West could gain a real advantage from taking this new approach, even if the Russians continue to stall. The world would know then who was holding up an East-West settlement.

This could be especially important in the case of the European Defense Community. Once Moscow showed its hand, the French would no longer have an excuse for delaying ratification of EDC.

There's strong support across the Atlantic for a direct top-level approach to the Kremlin—the sort of thing Churchill proposed last May.

Churchill felt then that talks at the highest level might clear the air enough to make settlement of specific problems possible.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

OCT. 10, 1953

There's a good chance Churchill will press this line again, even to the point of going alone to Moscow.

He is under heavy political pressure in Britain to grab the initiative. What's more, Paris seems to be warming up to his idea.

—●—

London this week moved fast, if belatedly, to meet a Communist threat to British Guiana (one of the three European colonies left in South America; it lies just east of Venezuela).

The Churchill government has troops on the way to Georgetown. It's ready to use these, or to suspend the constitution, if either becomes necessary.

What London fears is an attempt by the Peoples' Progressive Party "to set up a Communist-dominated state."

The fact is that the Churchill government was caught napping in Guiana.

Last spring London granted the colony a new constitution, which gave the assembly greatly increased powers. Then, unexpectedly, the Peoples' Progressive Party swept the election. It is led by Dr. Cheddi Jagan (originally from India) and his wife (who was an American Communist). This happened just as labor troubles in the sugar industry were coming to a head.

Now Jagan and his crowd want to take over the country—something American observers predicted months ago.

Whatever happens in Georgetown now, this business will have more than local repercussions. It will:

- Make Washington doubly aware of Communist aims in Latin America.
- Make London more cautious about pushing the British West Indies toward full self-government.
- Give the Labor Party in Britain a chance to attack the Conservatives for being reactionary on colonial policy.

—●—

This week, after two years in office, the Conservative Party meets at Margate to take stock of its position.

The Tories can pat themselves on the back for some real successes—removing controls and rationing; strengthening the pound; keeping business good and employment high; building more houses than the Labor government ever did.

Churchill's one real setback has come in the foreign field. So far, his proposal for Big Four talks hasn't got anywhere.

On top of that, of course, both Churchill and Anthony Eden have been on the sick list for some months now. And that's left the government without strong leadership.

Probably these things, as much as anything else, explain why the latest public opinion polls show Labor drawing ahead of the Tories.

What **JACK & HEINTZ** is doing about ...



HANDCUFFED ENGINEERS

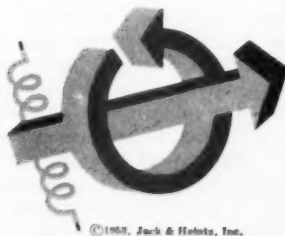
When a design engineer starts to develop a new product, he is often handcuffed by policies, habits or traditions—by artificial “musts”.

Take electric motors, for example. They are the muscles of scores of products from meat slicers to sump pumps.

If using standard motors is a “must” in the design of these products, it can put a needless hobble on engineering imagination and ingenuity, a shackle on sales-minded design. So we have a suggestion:

Free your engineers from man-made “musts”. Let them design your product to do its job best. Encourage them to pack it with features your customers want. And have them get in touch with us to work right along with them. Together we'll fit a Jack & Heintz motor to space, weight and operating requirements. Together we'll give you such a product as can be developed only by engineers whose hands are free. Jack & Heintz, Inc., 17641 Broadway, Cleveland 1, Ohio.

JACK & HEINTZ
Rotomotive
EQUIPMENT



© 1953, Jack & Heintz, Inc.

J&H Rotomotive Equipment—electrical, hydraulic or mechanical devices designed to solve unusual problems of developing power, controlling it or using it • Custom-built commercial motors • Aircraft accessory equipment • J&H Eisemann Magnets



THE OLD MOB Since cleanup laws were passed, the old, corrupt ILA has been grouping forces to attack new rules. First battle came last week.



THE POINT OF CLASH Just as threatening to the old ILA as the new cleanup laws, which go into effect Dec. 1, is the appearance of a new AFL union that promises dockers an honest organization that will "take the racketeers off your back." New union meets old at the pier

Is the White House Shifting Its Labor

● Hair-trigger use of Taft-Hartley injunction hits dock strike tying up East Coast shipping.

● But the move is not a reversal of Eisenhower's objection to intervention. It is anti-crime, not anti-union.

The Eisenhower Administration made its first use of the Taft-Hartley law this week. It invoked the labor-hated injunction process of the act to end the Atlantic Coast longshore strike. Immediate speculation developed over whether this meant a new turn in national labor policy.

On the record, bargaining between the International Longshoremen's Assn. and the New York Shipping Assn. has come to a contract expiration date without agreement. The biggest port in the world was closed by a strike that billowed up and down the coast from Portland, Me., to Hampton Roads, Va. The employers appealed to Eisenhower to use Taft-Hartley. Before the strike was 12 hours old he did.

Previously, the President had held steadfast to his campaign declarations. They were well remembered in both union and employer circles. He had maintained that one of the principal reasons why labor-management relations got snarled up was that government put in its oar too often. His prescription was to let the parties themselves have the responsibility for settling their

problems: "Keep the White House out of labor disputes." That policy had worked marvelously for Eisenhower. At least three major strikes—one in maritime, one in atomic energy, and one in jet engine manufacturing—had come to their own settlement without White House intervention. On its record, the previous administration would have been smack in the middle of all of them. Also, without strikes occurring, a new wage settlement was made in the auto industry and a whole new contract written in steel without the President having to concern himself in either situation. The "stay out of it" policy was paying off handsomely.

Then, last month, Martin Durkin stalked out of the Cabinet in an argument over Taft-Hartley amendments (BW—Sep. 10 '53, p. 174). Some very natural questioning developed over what effect this might have on the President's attitude toward organized labor. Some sections of the business community feared that the Administration might be tempted to go too far toward labor in an effort to woo back its friendship. Some union leaders worried

lest it initiate a "get tough with labor" line by the White House.

Neither side got any real assurance from Eisenhower's message to the AFL convention, nor from Vice-President Nixon's speech. Both awaited further signs.

It was in this still and heavy air that the speedy use of Taft-Hartley in the longshore strike came like a thunderbolt.

Outside of Washington and New York City, the first reaction was sharp.

It looked like clear support for management, a slap at the unions. But that was only the surface appearance.

Behind the strike was as complicated a tangle of purpose and cross-purpose as has ever precipitated a major U.S. dispute. For all practical purposes, events that began last May made the strike inevitable—and made it less a labor dispute than a struggle for power and plunder.

For two years, up until last spring, the New York State Crime Commission, appointed by Gov. Thomas E. Dewey, had been assiduously digging into crime on the waterfront. Its disclosures, fed to the public in large and dramatic doses, whipped community opinion into something just about as close to indignant unanimity as New York is ever capable of. In the public mind, the International Longshoremen's Assn., union of the dockers that had been captured by racketeers, was the principal scapegoat.



entrances of the Port of New York while police try to avert violence in a bitter battle for control.



THE NEW UNION

Holding rallies near the waterfront, the new AFL union finds its biggest handicap is that longshoremen fear to break away from the old crowd who are known for their violent methods.

Policy?

In May, the Crime Commission sent Dewey its recommendations for cleaning up the waterfront jungle. The proposals were drastic and unprecedented, carrying union regulation further than anyone had ever before seriously suggested (BW-Jun. 20 '53, p. 165).

Meanwhile, shocked by the Crime Commission's findings, the American Federation of Labor—heretofore inclined to be somewhat casual about charges of racketeering in its affiliates—moved to throw the ILA out of the Federation. When Dewey held public hearings on the matter in June, AFL president George Meany came and surprised the experts. The expectation was that he would take the traditional stand that labor would clean its own house, that government should not interfere. Instead he endorsed the necessity of state action.

From that point on, things moved very fast. Special sessions of the New York and New Jersey legislatures were called and a cleanup law was passed. As a bi-state compact it went to Congress where it was approved and signed by Eisenhower. The Waterfront Commission of New York Harbor was established to administer the law, which will become effective next Dec. 1.

Then the AFL had to make a major decision. Would it simply kick out the ILA—as the CIO did the West Coast longshoremen's union on charges of Communist control—and let it go at that? Or would it go the CIO one

better and set up a new union to fight the old ILA for control of the docks? Meany, Dave Beck of the teamsters, and Paul Hall of the seafarers made the decision to fight. The ILA was not only expelled, but confronted with a rival organization (ILA-AFL) determined to take over its jurisdiction.

This beset the old ILA on a third front. It was already in negotiation with its employers whose resistance to its demands got stiffer and stiffer as it became more apparent ILA might be knocked out of the labor picture by the AFL. And it already was gathering its strength and resources for a fight against the new law that imperiled some of its leading officials and threatened its old way of doing business. To preserve itself it had to get a new contract from the employers and close the embryo AFL union out of bargaining rights. When that contract was not forthcoming it struck.

Thus the real purpose of the Taft-Hartley injunction was to take the strike weapon out of the hands of men who had come to represent not labor, but gang interests. The fact that not one sober voice of labor officialdom has been raised against Eisenhower's use of Taft-Hartley is proof positive that the action is not taken as "anti-union."

Nor does it represent a shift in White House labor policy. That may come some day. But the use of the law in the Port of New York is not designed as an exercise of executive power in the field of labor relations. It is, purely and simply, an attack on crime.

**Lift 1000 lbs.
40 ft. per minute**



AIR HOIST

SPEED...

Lift rate ...
over 40 ft. per minute

SIZE...

Overall length 10 1/4"
weighs only 28 1/2 lbs.

SAFETY...

Better all safety
requirements ...
explosion-proof operation!

Give production a lift ... save time and labor with ARO Air Hoists for shipping docks ... heat treating departments ... refineries, chemical plants and plating departments ... machine shops and foundries ... appliance, furniture, textile, automobile and aircraft assembly lines ... stock rooms. Send for full details.

The Aro Equipment Corp., Bryan, Ohio

Offices in All Principal Cities

In Canada—Aro Equipment of Canada, Ltd. Toronto, Ont.

ARO

AIR HOIST

Also ... Air Tools ...
Lubricating Equipment ...
Aircraft Products ...
Grease Fittings



VICTOR REUTHER is much like brother Walter: He's self-assured, intelligent, talks and thinks like Walter. He's likely now to be . . .

A New Storm Center in CIO

Victor G. Reuther, younger brother of CIO's president, is moving into Washington after two years abroad, to be Walter Reuther's administrative assistant in CIO headquarters—his eyes, ears, and voice on CIO work "in all of its ramifications."

This is a significant assignment, and one that could turn out to be highly controversial in months ahead. Victor's presence in Washington is sure to be resented by conservatives in CIO as a move to Reutherize the organization and keep it on a left-of-center course. With a convention coming in Cleveland in mid-November, this resentment could stir up trouble.

Moreover, some important AFL leaders dislike Victor Reuther. His emergence as an important administrative figure in CIO in Washington could very well hurt the chances of AFL-CIO unity.

• **Natural**—If Walter Reuther saw these problems involved in his choice of brother Victor as one of two personal aides, he ignored them. Nothing could be more natural or logical to Walter than picking Victor as his stand-in. The two—Walter, 46 years old, and Victor, 42—have always been close. They have much in common, and are alike in many ways.

Both are highly intelligent and self-assured. They went to the same schools (both studied law at Wayne University in Detroit) and worked their way around the world together—holding jobs in 11 countries, including Russia, in 1933 and 1934.

They battled side by side against auto management in the 1930s and in rough and tumble United Auto Workers (CIO) politics. Even violence hit them similarly; Walter was seriously

wounded by a shotgun blast in 1948 and Victor lost an eye a year later when he, too, was shot by a still-unidentified assailant.

And, importantly, the brothers think alike. Some say it is because Victor does a great deal of busy Walter's thinking.

• **Two Sides**—Obviously, because of all this, Walter would think quickly of Victor when he needed a capable and trustworthy aide. Too quickly, perhaps. For while Victor can be a big asset to Walter in CIO headquarters, the possibility that his role there will cause dissension within CIO makes him a liability as well.

Now in Europe, Victor will return in several weeks to share Walter's office. Anyone visiting national CIO headquarters to do business with CIO's president will be ushered in to see Victor. Frequently visitors will wind up dealing with him, as a coordinator of CIO activities and as Walter's administrative aide.

This will be an added irritant in CIO leadership circles, where many already criticize Walter's aloofness and the way he delegates to personal assistants responsibilities that should be taken over by other elected officers, particularly CIO's executive vice-president, John Riffe.

• **Hedge**—CIO's convention in 1952 amended the organization's constitution to make the executive vice-presidency an elective job, and to provide that whoever holds it "shall assume the powers and duties of the president" in the latter's absence or incapacity. This was done ostensibly because of the confusion in CIO after the death of Philip Murray; actually it was a move to give the late Allan Haywood increased stat-

ure as executive vice-president—as a unity move in CIO and as a hedge against Reuther's ambitions and aggressiveness.

Before Haywood died early this year, he told friends that the constitutional change hadn't worked out as it was intended to. Robert Oliver, named by Walter Reuther as administrative aide, was making decisions for CIO in Reuther's name; Haywood, supposed to stand in for Reuther in his absence, was functioning as organizing director, and little else.

• **Discontent**—There were murmurs of dissension, because the idea of a personal aide for CIO's president was new. Murray hadn't had one, although on occasion Arthur Goldberg, then general counsel for CIO on a full-time basis, acted for Murray.

Haywood died, and the dissension over the "slight" for him ebbed. The appointment of Riffe, a compromise candidate, as executive vice-president put into office a man whose interest is almost wholly in organizing work. More and more, Oliver was able to function as Walter Reuther's personal emissary in CIO affairs.

Now, the choice of Victor Reuther as a second personal aide to brother Walter has started the murmurs of discontent all over again. Unlike Oliver, Victor Reuther is not one to function quietly behind scenes, or to take an almost unrecognized secondary role. As Walter Reuther's alter ego, he could very easily become CIO's No. 2 leader—a fact that Reuther foes, and some Reuther friends as well, do not like at all.

• **It Depends**—Much depends on Victor. Like his brother, he is a man with firm opinions who doesn't hesitate to

Do your letters look as Executive as they sound?

They will if they're typed on an IBM Executive* Electric Typewriter.

The unique system of letter spacing on the IBM Executive gives your letters greater readability and a more distinguished appearance. Each word, each line, each page looks more concise, and more attractive.

As you see below, instead of every character taking exactly the same space as on standard typewriters, on the IBM Executive thin letters get narrower space, wide letters the wider space needed.

We'll be glad to bring an IBM Executive Typewriter to your office . . . let your secretary type some of your letters on it . . . let you see how proud you'll be to sign and send them.

Choose from 12 distinctive and exclusive type faces the one which best expresses the character of your company and yourself. For instance, here are three:

IBM Bold Face Type is a strong, straightforward type, distinctly masculine in character.

IBM Secretarial Type is warm and personal, yet has businesslike dignity.

IBM Mid-Century Type, with its clear-cut lines, is direct, modern, convincing.

†These samples slightly reduced in size

*Trade Marks



Electric Typewriters

INTERNATIONAL BUSINESS MACHINES

11111	11111
aaaaa	aaaaa
wwwww	wwwww
mmmmm	mmmmm
Standard Typewriter spacing	IBM Executive Typewriter spacing

IBM, Dept. H-2
590 Madison Avenue, New York 22, N. Y.
In Canada: Don Mills Road, Toronto 6, Ont.

☐ I'd like to see the IBM Executive Electric Typewriter.

☐ Please send brochure.

Name

Company

Address

City State

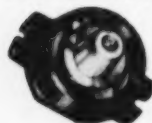


Another Motor Repairman Cheers Burnout Protection of KLIXON Protectors

HANOVER, PA.: Mr. J.C. Bankert, shop foreman of the Swam Electric Company, has worked on thousands of motors through the years. He says:

"We have seldom ever found a burned out motor that was equipped with a Klixon Inherent Overheat Protector. It is a very good safeguard against motor burnouts."

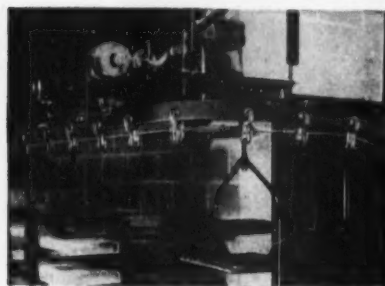
The KLIXON Protector, illustrated, is built into the motor by the motor manufacturer. In such equipment as refrigerators, oil burners, washing machines, etc., they keep motors working by preventing burnouts. If you would like increased customer - preference, reduced service calls and minimized repairs and replacements, it will pay you well to ask for equipment with KLIXON Protectors.



Manual reset

KLIXON

SPENCER THERMOSTAT
Div. of Metals & Controls Corp.
2610 FOREST STREET
ATTLEBORO, MASS.



BUSCHMAN CONVEYOR Strikes New Note IN PRODUCTION at NuTone, Inc.

continuous handling of 50,000 parts daily!

This manufacturer's production suffered from aisles jammed with parts trucks, excessive manual handling, wasted space. A large inventory was required.

Now, Buschman "Universal" Overhead Trolley Cable Conveyor provides live storage space overhead, cuts parts handling to a minimum and significantly reduces inventory in process. Using Buschman Cable Conveyor stock parts, you, like Nutone, can get a "custom installation" quickly and at low cost. Let Buschman suggest a time, money and space saving solution for your handling problem. Write today for details.

The E. W. Buschman Co.
4477 Clifton Ave.
Cincinnati 32, Ohio
Canadian Licensee:
James A. McKechnie, Ltd. Toronto 13, Canada



express them. If he gets deeply involved in CIO committee work—political action, housing, legislative, etc.—or tries to dictate to CIO's staff (the suspicion in Washington headquarters is that he will) then dissension will be quick and certain.

Another phase of the job assigned to Victor also could open a Pandora's box of troubles for Walter; the new aide is supposed to handle the selection of CIO people to sit on committees, to represent CIO on some important groups, and to represent Walter in relations with the Administration in Washington.

Working adroitly, Victor might avoid all pitfalls, be of great value not only to Walter but also to the whole of CIO. But because he is a controversial figure, as Walter's brother, this adroitness will be doubly hard to achieve.

Before going on CIO's staff two years ago as the organization's European representative, Victor worked for UAW. In the postwar period he was director of education. In the factional auto union, where Walter was and is more firmly entrenched than in CIO, Victor did a good job, but made enemies. The outlook now is for much the same sort of future for him.

How Solid Is Your Contract?

CIO and many employers urge NLRB to reverse its policy of often permitting craft unions to break loose from plantwide or industrywide bargaining.

How good are an employer's plantwide contracts? The answer may hinge on the important craft-severance hearings before the National Labor Relations Board in Washington this week.

The question is complex and controversial: How far should NLRB go in allowing craft unions to carve out separate jurisdictions in plants where workers are already organized on a plantwide or industrial basis?

This is an old issue—one that has long been a major cause of friction in the labor movement (BW—Sep. 26 '53, p178). It could cause a lot more, and might even jeopardize relations between AFL and CIO at a critical time, when a no-raiding agreement is in the offing.

• **What T-H Says**—The Taft-Hartley act provides that NLRB must not "decide that any craft unit is inappropriate . . . on the grounds that a different unit has been established by a prior board determination." Interpreted strictly, this would bar NLRB from refusing to certify a craft unit desired by craft workers in any plant that is already unionized on a broad, industrial basis.

The board has never followed this provision to the letter. It has consistently held that craft units should not be recognized in these circumstances:

• Where an industry is so closely integrated that craft work is a close part of the production operation, so that a separation would be impractical—in basic steel, for instance:

• If the craftsmen involved are not actually doing craft work.

• If they do craft work on an assembly line, as in an auto plant.

Otherwise, the board policy under T-H has been to recognize and certify

craft bargaining units—on demand—wherever they are.

AFL has succeeded in making inroads in many CIO-organized plants because of this policy. Many long-established employer-industrial union relationships have been upset. In one instance, an employer who had been dealing with one union for 16 years almost overnight had to begin dealing with nine.

• **Too Many?**—Early this year, Ivar Peterson, a board member, dissented on an NLRB decision that broke up such an established relationship. He complained that the board had been "granting severance too readily," and urges the board to review its old "practicality" policy.

Guy Farmer, NLRB's new chairman, took up the fight. He announced that the policy on craft units would be re-examined, along with other key policies of the Truman-appointed NLRB (BW—Sep. 5 '53, p173).

Both unions and management reacted quickly. AFL, anxious to have NLRB's existing policy upheld—if not further relaxed—called on the board to follow more closely the craft-severance policies provided for in the Taft-Hartley act. CIO, just as anxious to get tighter curbs on craft unions, complained that the board's present policy of "fragmentation . . . destroys the mass bargaining power of workers and replaces stable labor relations with chaos."

A few employers interested in bargaining separately with highly skilled workers urged NLRB to relax curbs on craft units in integrated industries. But this was a minority position. Most letters to the board, for submission to the hearing, took the same position as CIO.



BROWN (N. J.) Evening Record
ESCALATOR CONTRACTS pull all wage levels up. That's why management faces...

New Pay Climb

Business may dip in 1954, but unions will still go after higher wages, while demanding layoff cushion, too.

Business may dip in 1954—but unless a general decline reverses the climb of the cost of living—the result will be harder union bargaining, not easier.

• **A ninth round of wage increases** will be sought—and vigorously—to “catch up” with higher living costs and to compensate workers for greater productivity.

• **At the same time, unions will go after contract provisions**, such as wage or work guarantees, to cushion the possible impact of a recession on jobs.

If there had been any doubt about this outlook, developments of the past two weeks cleared it away.

• **Advance Planning**—Unions are already getting set for 1954, even though this year's contract bargaining is still far from over.

AFL's annual convention in St. Louis two weeks ago noted that “the economic climate for the negotiation of wage increases will stiffen.” AFL advised affiliated unions with 10.3-million members to “be thoroughly prepared for future wage negotiations . . . to maintain the pace of economic expansion and advance in the standard of living.”

In other words, AFL told its affiliates: Get set now to negotiate new pay increases in 1954, despite the times.

Then the United Steelworkers (CIO) called its wage-policy committee to a meeting in New York on Oct. 21, to begin planning for 1954 contract talks. Since major agreements in basic steel do not run out until June 30, 1954, the

late-October meeting is a clear indication of the importance of 1954 bargaining in USW's planning.

At one union convention after another—the latest, that of the International Union of Electrical Workers (CIO) in Montreal last week—officers told delegates that wage boosts will continue to be needed and justified in the coming year.

This early talk of coming wage demands must be taken seriously. It is more than just a routine expression of union hopes for higher pay in 1954.

• **Up the Escalator**—General Motors-type “escalator” contracts are a big reason for coming new wage demands—regardless. These agreements, which now cover about one of every five plant workers, boost pay automatically year to year through annual-improvement-factor increases (usually 4¢ or 5¢) in addition to keeping wages in line with living costs.

Obviously, what some unionists get automatically through their “escalator” pacts, others will go after in contract bargaining. So no matter what happens to the now-rising c-o-f-l in the months ahead, this is certain: “Escalator” productivity raises will set off union demands for similar increases of about 5¢ an hour for workers who do not get them automatically.

If the c-o-f-l continues climbing, union demands will rise correspondingly; any drop, unless it is a big one, will hardly cut the 5¢ demand figure.

• **Security**—So whether business generally is good, bad, or indifferent in 1954, wage demands will be as automatic as the movement of the “escalator” in long-term contracts. However, unions will take notice of business conditions in other contract demands.

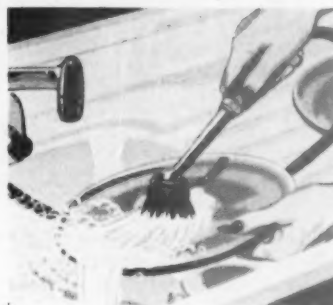
Economic worries in 1954 will mean a cropping up of “security” demands by unions concerned over layoffs.

Wage guarantees will be sought by the United Steelworkers in 1954. The union had the guaranteed annual wage as a secondary objective in the past, but always shelved it in bargaining for higher pay. Next year it may become USW's top demand, because of job worries and the rivalry between USW and United Auto Workers (CIO) on the annual-wage issue.

Severance pay demands can be expected, and may be tomorrow's “hot” bargaining issue in aircraft and electrical manufacturing.

A **35-hour week** demand is coming up, too, in many industries where layoffs are occurring or threatening. The demand is already on bargaining tables in apparels, and nonferrous metals. A lot of talk about shortening the work week was heard in past years, but even unions minimized its importance while full employment made it impractical. Now, unions are serious about it.

Washes Dishes in “SCRAPING TIME!”



Only Dishmaster
 removes food waste . . .
 washes dishes with
 aerated suds . . .
 rinses with clear water . . .
 all in one continuous motion!



DISHMASTER
 the Push-button Dishwasher
 Over 300,000 now in use

Now get dishes, glassware, silver, pots and pans sparkling clean—in no more time and with no more effort than it takes just to prepare dishes for the costly automatic machines! You'll find the sensational Dishmaster at leading department, hardware, plumbing and appliance stores. See it today!

Free Booklet
 Send Coupon Today!

GERITY-MICHIGAN CORPORATION			
Dept. BW-10, 10 S. Superior St., Toledo, Ohio			
Gentlemen: Please send free copy of "Dishwashing the Easy Way."			
NAME _____			
ADDRESS _____			
CITY _____	COUNTY _____	STATE _____	

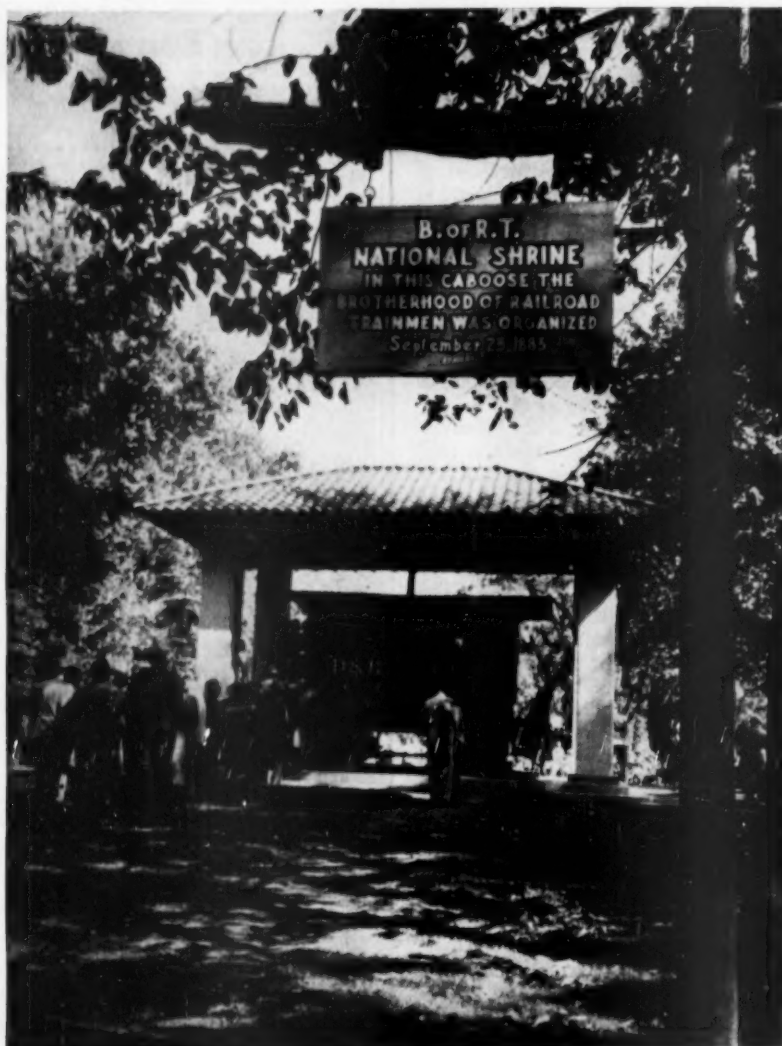


EARLY HOME of Brotherhood of Railroad Trainmen in Oneonta, N. Y. It grew fast, through . . .



VIOLENT STRIKES, as here in 1877. Legal and insurance programs also boosted union.

Trainmen: When They Fight,



LITTLE RED CABOOSE where eight brakemen met in 1883 to form brotherhood has become a shrine. Trainmen have eyes on the future, too: a big 1953 wage push.



PAST is symbolized by Elmer Wessell, sole survivor of original founders while . . .



FUTURE is in hands of W. P. Kennedy, BRT president who'll pilot contract battle.



BACK TO ONEONTA go crowds of the 215,000 members to celebrate 70th anniversary, look back on history of struggle with the railroads—and the U.S. government.

the U.S. Is Involved

(This is the eighth in a series of appraisals of major American unions.)

The biggest wage push of the year got under way last week. With contracts expired, over a million railroad employees launched a drive for some of the heftiest wage increases yet demanded. The operating brotherhoods—those representing employees actually engaged in engine and train service work—were quick to announce their aims: Up to 40¢ an hour in wage increases plus fringe benefits including longer vacations and more holidays (BW—Sep. 26 '53, p176).

Biggest of the operating unions, the 215,000-member Brotherhood of Railroad Trainmen, is pressing for a 37½¢ raise. And W. P. Kennedy, the trainmen's chief, says he expects to reach settlement without any hitches. But his optimism flies in the face of precedent. The last railroad contract battle dragged on literally for years, until May, 1952. The public, with a sharp memory for long drawn-out railroad disputes, is more skeptical.

I. Union Roots

The upcoming wage round will write the latest chapter in a rocky history. Time was when railroad workers were the aristocrats of the labor movement. They were the first to get federal laws protecting their bargaining rights and providing for settlement of their disputes with employers. The U.S. government, anxious for peace in a strategic industry, was then a highly solicitous parent to these often-problem children. While other labor unions were left to fight their own battles, railroad employees had Uncle Sam's eye upon them, and in a sense his arm around them. Regardless of how the deci-

sions went, the railroad workers were getting what almost all other workers lacked—a realistic acknowledgment of their key role in American industry.

But this recognition didn't come easy, and it didn't last long enough, as far as the railroad workers are concerned. The Wagner act, passed in 1935, gave other labor organizations an edge, which even Taft-Hartley didn't cancel. Railroad workers, exempted from both Wagner and Taft-Hartley, are governed by the Railway Labor Act, which effectively restricts any direct strike action on their part. Their early gains have, in a sense, become ashes in their mouths.

• **Iron Horse Days**—With all their late-found frustrations, though, the railroad workers have come a long way since days of the "iron horses." At that time the railroad industry was no place for the faint of heart. Trains ran both ways on the same track (and when they met, took turns backing to the nearest siding), and signals from engineer to conductor were a frantic combination of flags, bells and arm-waves on top of the cars in any kind of weather.

Wages were then about a dollar a day, but wages weren't the rail men's big problem. In the rough-and-tumble early days, the thing the railroad worker needed most was life insurance. And it was the thing he was least likely to get. No commercial insurance company would touch him with a 10-ft. pole.

The insecurity and hardship that resulted finally led a small band of railroad brakemen to meet in a little red caboose of the Delaware & Hudson RR in Oneonta, N.Y., in 1883, to work out a plan for helping each other in case of injury or death. They were aiming at a sort of fraternal insur-

ance lodge, but before they knew it the idea caught fire.

• **Birthday**—Last month, 70 years later, the same red caboose (now permanently enshrined at Oneonta) was the scene of ceremonies celebrating the birthday of the now powerful and wealthy Brotherhood of Railroad Trainmen.

The new BRT first concentrated on setting up an insurance program—one that since 1883 has paid out hundreds of millions of dollars in benefits. Then, inevitably, the BRT came of age as a full-fledged labor organization actively pursuing its members' interests on a variety of fronts.

II. Laws and Contracts

Once it had the insurance problem under its belt, the brotherhood turned its energies to legislation. As early as 1889, the union was lustily campaigning for railroad safety laws.

The BRT also sponsored the Employers Liability Act, which fixed responsibility of the railroads for accidents injuring employees. They pushed laws dealing with standardization of railroad equipment, numbers of employees on trains, and hours of service.

Legislation is still a big thing with the brotherhood. Its most strenuous efforts, and probably its most significant results, have been in the area of state legislation. Brotherhood lobbyists in state capitols have been largely responsible for laws limiting the length of trains, for example. Urged as a safety measure, shorter trains also mean use of more engines and in the end, more railroad employees.

• **Legal Framework**—Congress, in its anxiety to maintain peace in the railroad industry, has also put through a prodigious amount of legislation regulating relations between the carriers and their employees. The Railway Labor Act is the most far-reaching. Along with establishing the right of employees to organize, it sets up a procedure for settling disputes. It creates a National Adjustment Board to settle contract interpretation differences and a National Mediation Board to decide representation disputes, mediate contract changes, and interpret contracts reached through mediation.

A Railroad Retirement Act provides old age and disability annuities, and the Railroad Unemployment Insurance Act of 1947 provides for sickness, injury and unemployment benefits.

• **Grievance Problem**—The business of representing employees in grievance matters and in negotiations with employers, the major work of most unions, was more or less an afterthought with BRT. In fact, nobody knows how it all got started. Records show that a "grievance committee" was established at the brotherhood's first convention,

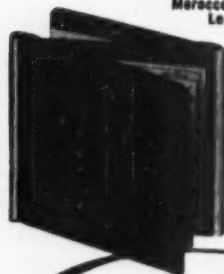
SLIMFOLD MONEY CLIP

*Turns Customers
into Friends*

Single Money Clip
with gold-plated
tempered spring clip
to hold bills se-
curely. \$1.25* in
Quantity, incl. com-
pany imprint in gold.



Pigskin
or
Morocco,
Leather
Lined



Two Compartment
Money Clip for bills
of different denomi-
nations. \$2.00* in
Quantity, incl. com-
pany imprint in gold.

* Plus 20% Fed. Tax

ADVERTISING LEATHER SPECIALTY CO., INC.

302 Fifth Avenue New York 1, N. Y.

"Stop those COSTLY SHUTDOWNS



Order Scott Air-Paks today"

"Our men can make repairs
with Air-Paks anywhere in the
plant regardless of breathing
hazards."

Men breathe pure, fresh air—
lungs and eyes are protected.
They can work safely in chem-
ical fumes, smoke or heat—even
under water—when wearing a
Scott Air-Pak.

Write today for the name of
your nearest Scott Safety
Equipment
Distributor!



SAFETY EQUIPMENT DIVISION

SCOTT AVIATION CORP.

286 ERIE STREET LANCASTER, N. Y.

Canada: Safety Supply Co. Toronto

Branches in all principal cities

Export: Southern Oxygen Co. 157 Chambers St.
New York 7, N. Y.

but it's generally believed that the word grievance didn't refer to employer-employee issues, but rather to differences between the members themselves.

At any rate, in 1888 BRT set up a grievance committee system throughout the brotherhood and established rules for adjusting disputes between the union and the railroads.

Progress was painful at first. Committeemen were fired from jobs when they tried to serve in their grievance capacity, and the union claims that membership alone was enough to carry a threat of discharge on some lines.

• **Feeling Its Strength**—In 1916, the trainmen joined with other railroad brotherhoods in a sweeping action against all the railroads in the country to have the official work day reduced from 10 to eight hours. The railroads contended that the object was merely to use eight hours rather than the existing period of 10 hours as the basis for computing overtime wages. Since the railroads have a dual system of pay based on both mileage and a standard day, they claimed the effect would be simply to raise the rate of pay for the same work.

The result was a stalemate. The unions then announced they would call a nationwide railroad strike for Labor Day of 1916. The threat was effective. To prevent a strike at a moment of international crisis, President Wilson asked Congress to pass the Adamson act, which provided the so-called eight-hour day for the railroad industry.

After that success, joint actions against the railroads got to be common. They had actually started out as an answer to a management argument. Individual railroads claimed they couldn't afford to raise wages or establish a more favorable basis of pay because they had to meet the competition of other roads not subject to the increase. By asking all competing railroads for the same increases at the same time, the brotherhoods hoped to silence that complaint. But to protect themselves against this concerted action, the railroads combined, too, and formed regional associations to negotiate with the unions. Today, any problem that extends beyond the property of a single railroad is handled regionally by the carriers.

III. The U.S. Moves In

The elaborate rules and procedures that govern relations between the railroads and the brotherhoods today were hammered out in long years of strife. There have been four big nationwide strikes in the railroad history of the United States: 1877, 1894, 1922, and 1946. Federal troops were called out in the first two, and sweeping injunctions were issued in the strikes of 1894 and 1922.

• **Last Round**—In the 1946 dispute the government seized control of the railroads but couldn't prevent the trainmen and other railroad workers from walking off the job six days later. President Truman, in a dramatic message to Congress, asked for power to draft the railroad workers. The move embittered the trainmen's chief, A. F. Whitney, and alienated the railroad brotherhoods.

In a strange political turnabout, Sen. Robert A. Taft rose to labor's defense by calling Truman's proposed measure unconstitutional. The Senate blocked the worker draft after the House had passed it.

President Roosevelt had been faced with a somewhat similar situation in 1941 when the operating brotherhoods issued a notice of intention to go on strike Dec. 7. The notice came after the unions had rejected a recommendation of an emergency board appointed by the President under the Railway Labor Act. Instead of approving the action of his board in these circumstances, Roosevelt ordered the board reconvened and authorized it to hear further arguments or else to act as a mediatory body in helping the parties reach a compromise. No new arguments were presented, but a settlement was finally reached through mediation and a strike was averted.

Another dispute started in 1949, when the brotherhood asked for a 40-hour week at wages then paid for a 48-hour week. The nonoperating brotherhoods (those representing shopmen, clerks, telegraphers, and so on) had already got this type of wage boost. A fact-finding board was appointed but failed to come up with a satisfactory solution. In the course of the dispute, during 1950, the trainmen were cited for contempt and the roads seized by the Army.

A fact-finding board in December, 1950, proposed a 40-hour week with an 18¢-an-hour increase but the brotherhood turned it down. While the federal government had control of the railroads, however, the workers got raises ranging from 2¢ to 5¢ an hour, retroactive to Oct. 1, 1950. In 1951 the trainmen split the ranks of the railroad brotherhoods by making a separate wage-rules settlement with the carriers.

• **New Challenge**—It was during this long dispute, in the summer of 1949, that A. F. Whitney, the trainmen's president since 1928, died. He had guided the brotherhood through some of its most difficult years and lived to see it expand to an organization representing workers on some 270,000 of the 282,000 miles of railroad in the U.S., Canada, and Newfoundland. Today it owns and occupies a 10-story building in Cleveland, Ohio. From this headquarters, BRT keeps touch with its

members through a weekly newspaper, the Trainman News.

Now solid as it is, the brotherhood has a lot at stake in its next wage push. Current negotiations will be the first under a Republican administration in two decades, and for the first time in years the White House will be against—rather than for—quick intervention in labor disputes. In recent years, both parties in rail contract bargaining have complained that there should be more direct collective bargaining and less reliance on the government. Yet with the White House standing by, ready to move in, they haven't done the serious negotiating necessary to wrap up contracts without outside decisions.

This time, it's a sure bet that carriers and unions will have ample opportunity for direct bargaining—if they sincerely want to do it.

LABOR BRIEFS

Coal showdown may be off until early 1954. John L. Lewis has not yet served a 60-day strike notice and is now hardly likely to force a bargaining crisis that would strain miners financially during the Christmas holidays, or that would come before cold weather has cut into high coal reserves.

“Packing” of NLRB to influence its interpretation of national labor law is being charged again—but there's a difference. Sen. Hubert Humphrey (D., Minn.) charges Eisenhower is putting in a board majority antagonistic toward unions. Last time, Republicans accused the Democrats of “packing” the board with pro-labor members.

HOW OUR LABOR CONTRACT OPERATES

ARTICLE VIII: SENIORITY

COMPANY



LABOR POOL

- PROBATION 520 HRS.
- CONTINUOUS SERVICE BEGINS 1 WORK DAY
- MAY REQUEST TRANSFER
- CO SENIORITY APPLIES
- VACATIONS
- SEVERANCE PAY
- WORK RESERVE

DEPARTMENT



LABOR POOL

- VOLUNTARY TRANSFER LOSES DEPT. SENIORITY
- ESTABLISHES SENIORITY AFTER 30 DAYS WORKED
- COMPANY TRANSFER HE RETAINS SENIORITY
- CO APPLY FOR 2 SENIORITY
- CO MUST NOTIFY UNION 480 HRS. BEFORE TRANSFER

SEQUENCE



SEQUENCE ARRANGED BY COMPANY

- ENTER ALLOWED LEAVE JOB
- MUST WORK 30 DAYS
- CAN APPLY FOR 2 SENIORITY
- MAY CHANGE APPLICATION
- CO POSTS APPLICATIONS
- UNITED SENIORITY

Pinning Up Labor Relations Tips

Personnel and labor-relations executives on hand for the American Management Assn.'s national personnel conference in New York last week found an eyeful of exhibits. Lance, Inc., Weirton Steel Co., New York Telephone Co., and General Motors Corp. set up regular county fair-sized displays to show fellow AMA members how they cope with critical employee problems.

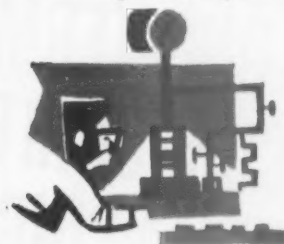
Weirton Steel's exhibit made a particular impression on viewers. In brightly colored flannel-board visuals, it told the story of the company's "HOLCO" (How Our Labor Contract Operates) program. A Weirton representative explained how the company conducted

900 meetings between January and June of this year to educate foremen and union stewards on terms of the labor agreement.

Result: The bulk of grievances that used to reach top labor and management levels now rarely gets past the initial grievance procedure stages. A mutual knowledge of the contract did the trick, according to Weirton, and the company's grievance costs have been drastically cut. Tests given before and after HOLCO showed a striking 50% improvement in "contract wisdom" among front-line union and management "sergeants" who administer the agreement on a day-to-day basis.



**from Loading Logs
to Cutting Cellophane**



Quincy
COMPRESSORS

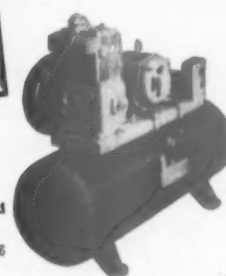
**DO IT BETTER...FASTER
AT LOWER COST**

Whether it's operating crane tongs that lift logs...or air cylinders on cellophane cutting machines... Quincy Compressors can be relied upon for dependable compressed air supply. And these are merely two of hundreds of jobs, both unique and everyday, performed by Quincy.

Quincy builds a complete line of air compressors in a variety of mountings, with sizes ranging from 1 to 90 c.f.m. You'll find Quincy Compressors in service stations, garages, or as part of products requiring compressed air supply. Sold and serviced by a nationwide network of authorized automotive and industrial distributors.



"AIR MAKES THINGS HUM"
booklet shows how Quincy has solved 16 interesting compressed air problems. For your copy, write Dept. W-46



QUINCY COMPRESSOR CO.
QUINCY, ILLINOIS

Branch Offices: NEW YORK • PHILADELPHIA
DETROIT • CHICAGO • ST. LOUIS • DALLAS
SAN FRANCISCO

Quincy Manufactures Air Compressors Exclusively

**NEW
AVENUES
TO**

**LONG-TERM
CORPORATE
FINANCING**

and

**MERGING
BUYING
SELLING
CORPORATIONS**

Write today for this booklet describing the latest methods in these fields.

W. T. GRIMM & Co.

INSTITUTIONAL INVESTMENTS
SPECIALISTS IN THE NEGOTIATION OF
DIRECT PLACEMENT LOANS • MERGERS
SALE OF COMPANIES

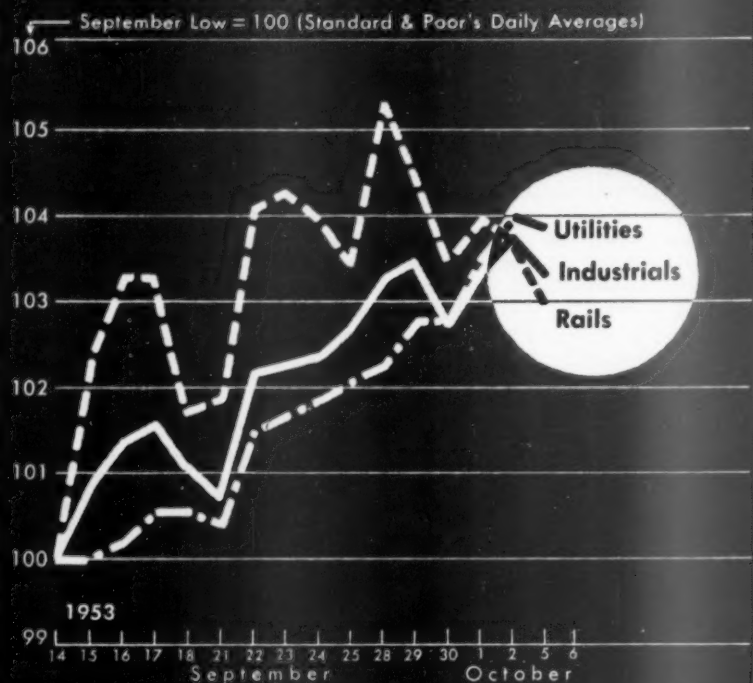
231 S. LA SALLE ST. 714 W. OLYMPIC BLVD.
CHICAGO 4, ILLINOIS LOS ANGELES 15, CALIFORNIA

FINANCIAL 6-5265

PROSPECT 3809

THE MARKETS

The Stock Market: Is the Rally Petering Out?



Bulls Can't Say Much

Dodger fans weren't the only group on the mourners' bench this week. A growing throng of stock market bulls were telling the Brooklynites to shove over.

The bulls, too, were getting the idea that they had bet on the wrong side. More and more signs appeared during the week to indicate that the market rally, which started so jauntily a few weeks ago, was headed for the dust bin.

• **Warnings**—It wasn't that the bulls hadn't been warned. Most of the bears, reinforced by a goodly batch of middle-of-the-roaders, had been shouting all along that nothing was going on but a technical rally. And the type of market action since the excitement started (chart above) made the point even sharper.

Trading volume has been low right along. Most of the buyers who did show up headed largely for the "good" industrial shares, or the "depression-proof" utilities. There has been little demand for the more speculative, cyclical issues since the middle of September. In other words the existing condi-

tions were not the sort to incubate a really sizable rally.

• **Small Moves**—Of course, some groups of stocks have performed way above the averages. But the vast majority of Big Board issues have registered only minor gains—or losses.

The compilation on the opposite page shows performances during the "rally." You can see from it that the aircraft manufacturing shares showed an exceedingly strong tone. Other groups that did well were quite diversified: metal containers, electrical equipment, finance companies, machine tools, and most shares of utility operating companies.

• **Selectivity**—Basically, the Big Board now has one quality in common with its "Korea market" performance: It has functioned as a market in stocks rather than a stock market. That is, selectivity has been the general rule, in both buying and selling.

As a result, neither the group averages nor the general averages can give an exact picture of how any given investment portfolio is doing, at any given

moment. Diversity of price action has been as marked inside the stock groups as it has between groups.

Take the chemicals. Dow common is currently selling about 24% below its high. But Union Carbide & Carbon has fallen off only 16%, and du Pont's drop is a modest 12%. Among the automobile commons, General Motors is down 24%, compared with Chrysler's 34%, while Hudson, Studebaker, and Packard have dropped from 41% to 50%.

Among the rails—the worst actor of all as a group—you still find some performances that top those of individuals in much better behaved groups. Although Atlantic Coast Line shows a loss of 30%, Union Pacific common is now off only 13.6%, not much more than du Pont, best individual in the much-better-acting chemical group.

More often than not this varying price vulnerability is due to basic differences in the risk involved for investors in different companies.

The Current Rally: Thus Far Both Minor and Spotty

Stock Group	1953 Range		Start of Rally	Subsequent High	Recent Level	Rally Gains	
	High	Low				Maximum	Now
Agricultural machinery	162.3	124.6	124.6	127.9	127.9	2.6%	2.6%
Aircraft manufacturing	229.7	191.7	194.2	206.8	206.8	6.5	6.5
Air transport	361.3	274.1	275.9	277.7	277.7	0.7	0.7
Aluminum	381.4	326.3	353.5	349.8	342.6	-1.0	-3.1
Automobiles	263.1	202.4	202.4	205.9	205.9	1.7	1.7
Auto parts and accessories	181.0	143.0	143.0	146.0	146.0	2.1	2.1
Auto trucks	127.3	104.7	104.7	106.5	106.5	1.7	1.7
Bituminous coal	494.0	354.7	354.7	356.6	355.5	0.5	0.2
Building materials	172.7	151.2	151.2	152.7	152.7	1.0	1.0
Carpets and rugs	137.7	101.1	102.5	102.8	102.8	0.3	0.3
Chemicals	263.1	236.5	240.8	246.0	246.0	2.2	2.2
Confectionery	128.2	120.9	122.5	124.9	123.5	2.0	0.8
Containers—glass	131.8	116.4	117.0	120.0	120.0	2.6	2.6
Containers—metal	115.7	104.3	107.2	112.4	112.4	4.9	4.9
Copper	192.1	137.2	137.2	140.1	139.8	2.1	1.9
Department stores	267.4	251.8	251.5	252.0	251.7	0.2	0.1
Distillers	401.9	356.1	356.6	357.1	*356.1	0.1	-0.1
Drugs—ethical	204.9	161.7	161.7	168.5	166.5	4.2	3.0
Drugs—proprietary, cosmetics	146.1	135.1	141.8	143.6	143.6	1.3	1.3
Electrical equipment	186.2	171.0	171.2	179.8	179.8	5.0	5.0
Fertilizers	478.3	384.3	384.3	391.5	391.5	1.9	1.9
Finance companies	166.4	138.4	138.4	148.2	148.2	7.1	7.1
5¢, 10¢, \$1 chains	128.8	119.0	119.1	119.7	119.7	0.5	0.5
Food companies	165.5	156.0	157.0	158.8	158.8	1.1	1.1
Food chains	291.6	269.1	280.8	285.4	285.4	1.6	1.6
Gold mining (U. S.)	65.7	55.1	55.3	56.5	*55.1	2.2	-0.4
Lead and zinc	116.3	85.4	87.1	86.7	*85.4	-0.5	-2.0
Leather	192.8	158.6	158.6	160.6	*158.6	1.3	...
Machine tools	224.6	178.6	184.8	196.9	196.9	6.5	6.5
Machinery	185.3	154.3	154.3	157.3	157.3	1.9	1.9
Mail order, general chains	258.8	238.4	239.7	238.5	238.5	-0.5	-0.5
Metal fabricating	193.5	165.5	165.5	169.3	169.3	2.3	2.3
Mining and smelting	137.7	105.9	105.9	107.4	106.5	1.4	0.6
Motion pictures	163.5	136.7	139.5	138.0	138.0	-1.1	-1.1
Natural gas	245.7	214.3	218.4	227.4	227.4	4.1	4.1
Office, business equipment	272.7	237.8	240.9	243.4	243.4	1.0	1.0
Oil—crude producers	716.1	588.4	590.6	592.4	*588.4	0.3	-0.4
Oil—integrated companies	300.2	261.8	261.8	264.0	264.0	0.8	0.8
Paper	646.0	562.1	584.9	591.9	591.9	1.2	1.2
Printing and publishing	130.4	104.1	104.1	108.3	108.3	4.0	4.0
Railroads	185.8	153.7	153.7	155.1	153.9	0.9	0.1
Railroad equipment	110.3	91.5	92.0	91.8	91.8	-0.2	-0.2
Rayon and acetate yarn	480.3	296.1	315.6	308.0	*296.1	-2.4	-6.2
Shipbuilding	286.1	227.6	227.6	233.2	232.9	2.5	2.3
Shipping	602.7	490.0	490.0	502.8	502.8	2.6	2.6
Shoes	126.3	120.5	120.5	121.4	121.4	0.7	0.7
Soft drinks	116.0	100.0	100.0	101.2	101.2	1.2	1.2
Steel	215.5	174.8	174.8	177.8	177.8	1.7	1.7
Sugar	105.3	84.1	84.6	84.5	*84.1	-0.1	-0.6
Textile weavers	267.6	212.1	214.5	216.1	*212.1	0.7	-1.1
Tires and rubber goods	540.6	420.4	420.4	436.2	436.2	3.7	3.7
Tobacco	97.8	84.7	92.6	94.6	94.6	2.2	2.2
TV, electronics	330.7	260.5	260.5	270.7	269.6	3.9	3.5
Utilities—holding companies	140.0	126.5	121.9	125.8	125.8	1.8	1.8
Utilities—operating companies	140.0	126.5	131.6	135.0	135.0	2.6	2.6
Vegetable oils	243.9	163.6	163.6	165.8	164.7	1.3	0.3

Data: Standard & Poor's Weekly Stock Price Indexes (1935-39 = 100).

* New 1953 low.

† Early-September low.

When you
think of
money at work

Think of
PEOPLES
FIRST



Last year, from 65% to 70% of all radios were bought with the aid of consumer credit . . . and nearly every home in the United States now has more than one radio. Consumer financing stimulates the radio market . . . contributes to higher living standards.

In Pittsburgh, consumer financing at Peoples First National has many uses. Last year, 56,465 people used Peoples Time Plan loans to buy radios and other consumer purchases.

But the radio industry is only one of the many groups that benefit when we put money to work. We invite you, too, to take advantage of our 90 years of experience . . . our complete banking facilities.

**PEOPLES FIRST
NATIONAL**
BANK & TRUST COMPANY

Member Federal Deposit Insurance Corporation

DON'T BUY—Lease YOUR TRUCKS

MEMO
When you don't buy your trucks, you don't buy the headaches of procurement, maintenance, tied-up capital. You don't buy garage space, insurance, licenses, bookkeeping or other countless complications of truck ownership. Yet you always have a clean truck, year '52; with your name on everything supplied but the driver!

National TRUCK LEASING SYSTEM
33 EAST JACKSON BOULEVARD
CHICAGO 4, ILLINOIS
Members in principal cities

ReLEASE invested capital!

Send for bulletin B-9.



TRAVELETTTER

How do YOU handle TRAVEL EXPENSES???

American Home Foods, A. C. Gilbert, International Cellulotton, scores of leading corporations, for years have used TRAVELETTERS because they

- ✓ ELIMINATE expense checks
- ✓ IMPROVE expense procedure
- ✓ LESSEN internal costs
- ✓ CONTROL travel expenses
- ✓ INCREASE productive time
- ✓ MINIMIZE cash advances

You'll be amazed at the advantages your company and traveling personnel will enjoy by using TRAVELETTERS! Write for information.

TRAVELETTTER CORPORATION
Since 1894
GREENWICH, CONN.

LEGAL NOTICE
STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1913, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1940 (Title 29, United States Code, Section 223) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION

Of Business Week published weekly at Albany, New York for October 1, 1953.

1. The name and address of the publisher, editor, managing editor and business manager is: Publisher, McGraw-Hill Publishing Company, Inc., 330 West 42nd Street, New York 36, N. Y.; Editor, Elliott V. Bell, 330 West 42nd Street, New York 36, N. Y.; Managing editor, Edgar A. Grunwald, 330 West 42nd Street, New York 36, N. Y.; Business manager, Herman C. Sturm, 330 West 42nd Street, New York 36, N. Y.

2. The owner is: McGraw-Hill Publishing Company, Inc., 330 West 42nd Street, New York 36, N. Y.; Stockholders holding 1% or more of stock: Curtis W. McGraw and Donald C. McGraw, Trustees for Harold W. McGraw, Curtis W. McGraw and Donald C. McGraw, all of 330 West 42nd Street, New York 36, N. Y.; Curtis W. McGraw and Harold W. McGraw, Trustees for Catherine M. Bell, 330 West 42nd Street, New York 36, N. Y.; Curtis W. McGraw, 330 West 42nd Street, New York 36, N. Y.; Donald C. McGraw, 330 West 42nd Street, New York 36, N. Y.; Mildred W. McGraw, Madison, New Jersey; Grace W. Mehren, 536 Arenas Street, La Jolla, California; Touchstone & Company, c/o The Pennsylvania Company, 15th and Chestnut Streets, Philadelphia 1, Pa.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: 250,154.

McGraw-Hill Publishing Company, Inc.
By J. A. GERAHDI, Vice Pres. & Treas.
Sworn to and subscribed before me this 10th day of September, 1953.
[REAL]
ELVA G. MARLIN,
(My Commission expires March 30, 1954.)

LOCAL BUSINESS

Who Owns When?

LOS ANGELES—In its dealings with aircraft manufacturers, the U.S. government normally does not wait until planes are finished and delivered before paying the company. Instead, it makes several "progress payments" while the aircraft are being built.

Now this question has arisen: When payment is made in installments that way, when does title pass? The Southern California airframe manufacturers insist that full title passes as soon as the first payment is made. And for years local tax assessors agreed with that—officially, at least.

This year the assessors in both Los Angeles and San Diego Counties have suddenly kicked over the traces. They are levying personal property taxes against the airframe builders on all work in process except the portion actually paid for by the progress payments. They deny the companies' argument that they're taxing U.S. government property; they say they're only taxing the remaining vested interest of the manufacturers in the property. If a plane has been, say, 80% paid for, the assessors insist they have the right to tax the remaining 20% to the company.

The amount of tax involved is estimated at about \$12-million a year in Los Angeles County; about half that in San Diego County. The companies

have paid the first installment under protest and plan to file suit to kill the assessment and to recover the amounts already paid.

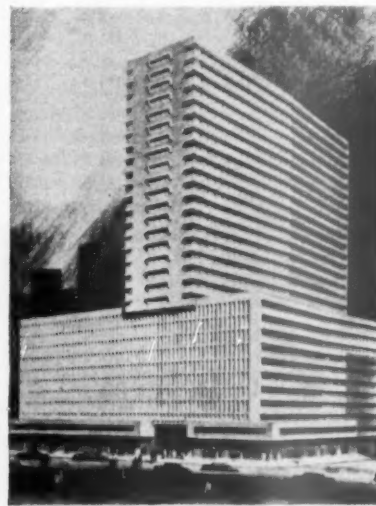
Shrinking Distance

NASHVILLE—In Nashville, as in most other cities, one of the major gripes of airline passengers has been the time needed to travel on the ground between the city and the airport. Now Nashville city planners are getting ready to do something about it. They can't move the airport closer to town. So they're going to move the airport's passenger terminal closer to town instead.

At present the terminal is at the far side of the airport away from the city. The airport taxis have to go half way around the field on a secondary road before they hit the main highway. The new building will be at the corner of the airport closest to town, which will cut the distance from the present 8½ mi. to 6½ mi., and an estimated 15 minutes from the present 40-minute driving time.

Sewer Blast Aftermath

CLEVELAND—It appears that Cleveland still hasn't heard the last of the sewer explosion on West 117th Street that killed one person and injured 62 (BW—Sep.19'53,p29). Right



Wall Street Area to Get New Skyscraper

New York's Wall Street district, probably the most heavily built-up piece of acreage in the world, is about to get its first major new building in 25 years. The 69-year-old New York Produce Exchange Building (left)

will be torn down to make way for the new 30-story, \$25-million air-conditioned skyscraper (right). The new building will retain the present structure's famous address: No. 2 Broadway.



Torrington has
large facilities for
small parts
...made to your exacting standards!

Eighty-six years of precision metal working know-how . . . special automatic machinery capable of producing millions of precision pieces a day . . . that's the kind of service Torrington offers on small metal parts.

Pins, pivots, mandrels, special drills and blades, shafts, punches and many others . . . the Standard Plant, home of the Specialties Division, can make them in any metal, better, faster, and for less than you can. Send your blueprints or a sample part for a prompt quotation.



This Condensed Catalog Can Save You Money! This catalog of small precision metal parts shows some of the types and sizes that can be produced by Torrington quickly and economically. Send for your copy today.

THE TORRINGTON COMPANY

Specialties Division

5 Field Street, Torrington, Conn.

Makers of

TORRINGTON NEEDLE BEARINGS

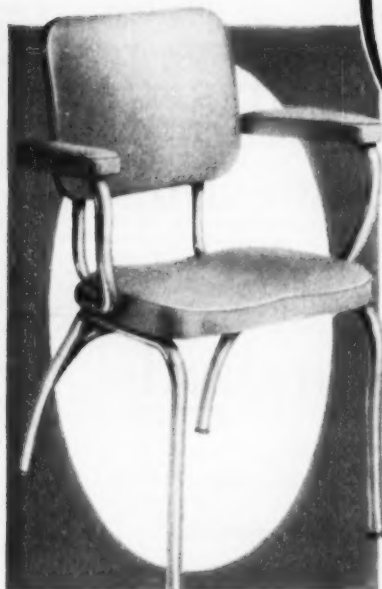
"Better Seating Took the Fatigue Out of Conferences in Our Offices"



Says LOEW'S, INCORPORATED

MODEL 20-LA
COSCO CONFERENCE
SPECIAL SIDE CHAIR

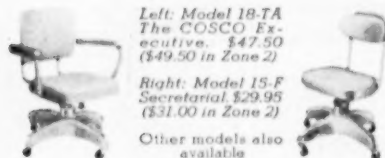
ONLY \$27⁵⁰*



*\$28.50 in Florida, Texas and 11 western states (Zone 2)

**Designed by Seating Engineers
to Reduce Fatigue—
Increase Efficiency**

Like all COSCO office chairs, this handsome, posture-right COSCO Conference Special is engineered to give superlative comfort...to sustain alertness. An ideal chair for reception room, conference room, or private office. With sturdy, all-steel construction, foam-rubber-cushioned, saddle-shaped seat. Tufflex-padded contour backrest, with DuPont "Fabrilite" or Goodall "Claremont" upholstery, here is a chair that is practically indestructible. Its extended legs prevent wall-marring. Frame is finished in Bonderized baked-on enamel. Choice of colors. For full details, mail coupon today.



Left: Model 18-TA
The COSCO Executive. \$47.50
(\$49.50 in Zone 2)
Right: Model 15-F
Secretarial. \$29.95
(\$31.00 in Zone 2)

Other models also available

HAMILTON MANUFACTURING
CORPORATION
COLUMBUS, INDIANA

Also available in Canada, Alaska and Hawaii
through authorized COSCO dealers

COSCO Office
Chairs

BETTER SEATING means BETTER WORK

Please attach coupon to your letterhead

COSCO Office Chairs
Hamilton Manufacturing Corporation
Dept. BW-10, Columbus, Indiana

Yes, I should like to have your data on better office seating. I am especially interested in:

☐ Secretarial Chairs ☐ Executive Chairs
☐ Side Chairs

Firm _____

By _____

Address _____

City _____ Zone _____ State _____

after the explosion, traffic was rerouted onto Coutant Avenue, the next street to the west. Since then Coutant Avenue, which normally is not used too much, has been carrying a heavy volume of traffic. Evidently it was close enough to the blast so that it, too, sustained some damage.

The combination was too much. Last week a section of Coutant Avenue 300 ft. long by 3 ft. wide collapsed, but no one was hurt. Engineers are now afraid that damage may have spread even beyond Coutant Avenue, and the next two streets to the west have been blocked to all traffic as a precautionary measure.

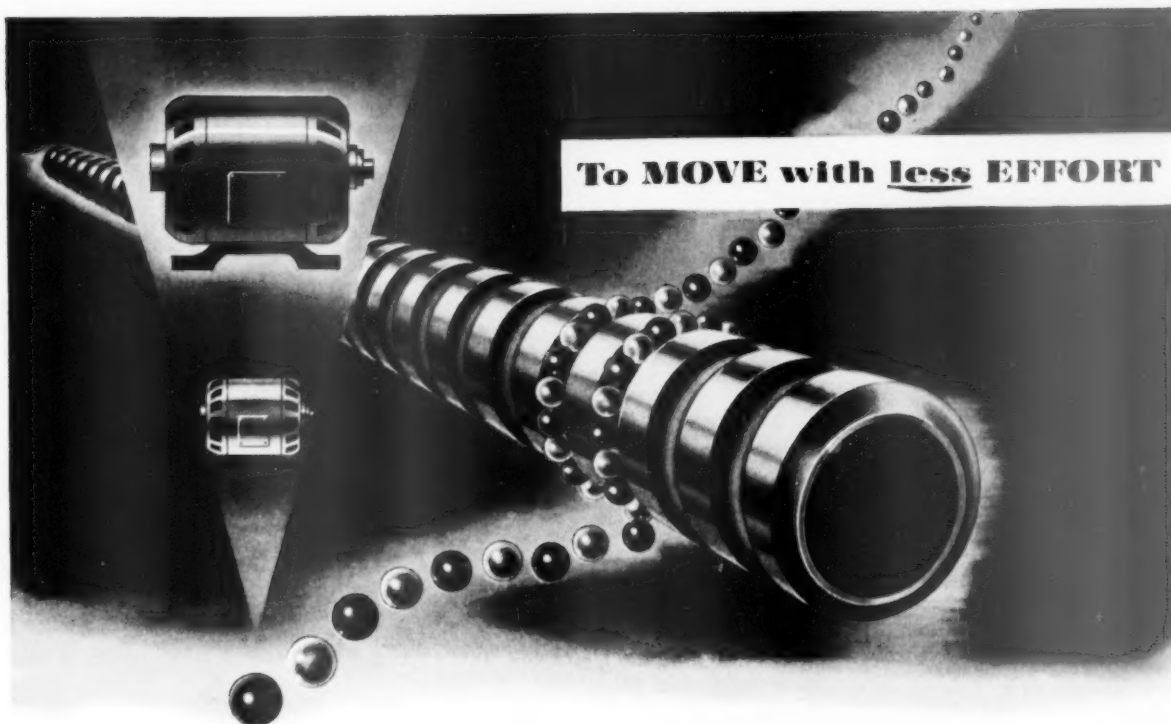
On the Right Track

SYRACUSE—A couple of years ago, Syracuse was torn by controversy over whether a harness-racing track should be permitted to operate at Collamer, just 8 mi. northeast of the city. The loudest protests came from Syracuse businessmen; they argued that the track would drain money away from the city, and thus would have a serious depressing effect on business.

They raised so much fuss that the promoters of the track changed their plans, and built, instead, near Vernon, some 34 mi. due east on the road to Utica. Last week the new trotting track finished its first season, and the results appear to indicate that the Syracuse businessmen were wrong. Vernon merchants report substantially higher sales, bank deposits zoomed, so did postal receipts. Construction has boomed.

Many Syracuse businessmen still think they were right. Syracuse's population in 1950 was 220,583, they point out, while Vernon's was exactly 754. A new enterprise that means a lot of new business for such a small town, they say, could still have been bad medicine for a big city.

The Pictures—Ackroyd Photo—168; Arthur Avedon—79; Bettman Archives—90 (top), 170 (top rt.); George Burns—170 (bot.), 171; Cal-Pictures—cover, 186 ctr., bot.; Bill Clinkscales—118 top (ctr.), bot. (lt.), bot. (ctr.), 119 (top), bot. (rt.); George Harris—146, 147, 148, 149; Harris & Ewing—27, 90 bot. (ctr.); I.N.P.—90 bot. (rt.); Bob Iscar—68, 136 (bot.), 137 (bot.), 139; Herb Kratovil—32, 33, 72, 73, 108, 109, 110; Gene Lester—118 middle (rt.); Palmer Pictures—186 (top); Bob Phillips—166; Pyle Photography—118 middle (lt.); Jean Raeburn—137 (rt.); Seidman Photo Service—176 (lt.); U.P.—28, 29, 90 bot. (lt.), 158, 165; W.W.—118 top (rt.), 164 (lt.).



To MOVE with less EFFORT

WE'VE DISCOVERED HOW TO *Shrink your motors* **-by Floating a screw on a stream of balls!**

We eliminate the need for the excess power that was added to overcome friction in the old-fashioned screw-type drives.

Ball-screw actuators made by Cleveland Pneumatic have an efficiency as high as 90% on most types of drives for machines. This lets you use a $\frac{1}{2}$ -horse-power motor instead of a 1-horse... a 5-horse instead of a 10... with power to spare.

It's done by replacing the famous old high-friction Acme thread principle with a spiral ball-bearing thread that does wonders for efficiency. Sliding friction is replaced by the rolling action of the screw and nut over the steel balls in the threads.

These "AEROL" Ball-Screw Actuators are at work *now*... in the air at scores of spots on air-

craft; on the ground in machine tools, in research equipment, on trucks and cars; at secret locations on difficult defense projects.

We can also cut down friction in *your* designs and products... by shrinking the size of motors, easing the effort it takes to hand-actuate a device, making equipment move faster yet come to a more precise stopping point under any condition. Our Actuators operate smoothly under the greatest extremes of heat and cold.

When can we discuss with you the application of our AEROL Ball-Screw Actuators in your business? If you wish to know more about Cleveland Pneumatic Actuators and their uses... write for our booklet.



Cleveland Pneumatic *Tool Company* CLEVELAND 5, OHIO

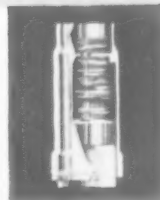
Department B-10

**BALL-SCREW ACTUATORS • AUTOMOTIVE SHOP EQUIPMENT
AIR-OIL IMPACT ABSORBERS**

World's Largest Manufacturer of Aircraft Landing Gears

To CUSHION SHOCK

CPT's shock absorber principle combines pneumatic and hydraulic cushioning. It can control minute vibrations or tons of impact. It is the shock absorber for the largest aircraft landing gears (CPT is the world's largest manufacturer of landing gears), and the same principles are often adapted to finger-sized units. May we discuss with you how to take the shock out of stopping or the motion out of vibration?



This is National Steel



Saving seconds where seasons count

As the sparkling blue waters of Lake Superior turn darker under autumn skies, there's a perceptible increase in the tempo of the men and ships that make up the Great Lakes ore carrying fleet. For enough iron ore must be moved to the stockpiles of steel mills to keep furnaces running throughout the long winter months when the Great Lakes are frozen in.

Saving seconds where seasons count is a vital job for the ore fleet. And one of the most important parts of this job is the speed in turn-around time—the time required to unload and load a ship.

From 9,000 to 12,000 tons of ore are carried in the average ship. The new Ernest T. Weir, flagship of National's fleet, carries over 20,000 tons! At the docks of National's plants in Detroit and Buffalo and at Lower Lake ports—for rail shipment to its plant in Weirton, West Virginia—ships are unloaded by giant cranes and started on their return voyage in a matter of a few hours.

Such high-speed operations save the

vital seconds so necessary to serve daily operating needs and also build the winter's stockpiles.

With its own ore and coal mines, its own ore carriers and its own furnaces, rolling mills and finishing facilities, National Steel is completely integrated and entirely modern. Always in the forefront of steel progress, it is building constantly to serve America better—one of the leaders in steel production.

NATIONAL STEEL
GRANT BUILDING



CORPORATION
PITTSBURGH, PA.

AN INDEPENDENT COMPANY OWNED BY MORE THAN 19,000 STOCKHOLDERS

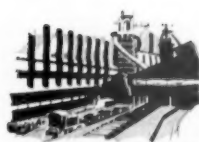


**SEVEN GREAT DIVISIONS
WELDED INTO ONE COMPLETE
STEEL-MAKING STRUCTURE**



GREAT LAKES STEEL CORP.

Detroit, Mich. A major supplier of standard and special carbon steel products for a wide range of applications in industry.



WEIRTON STEEL COMPANY

Weirton, W. Va. World's largest independent manufacturer of tin plate. Producer of many other important steel products.



STRAN-STEEL DIVISION

Ecorse, Mich. and Terre Haute, Ind. Exclusive manufacturer of famous Quonset buildings and Stran-Steel nailable framing.



HANNA IRON ORE COMPANY

Cleveland, Ohio. Producer of iron ore from extensive holdings in the Great Lakes area.



THE HANNA FURNACE CORP.

Buffalo, New York. Blast furnace division for production of various types of pig iron.



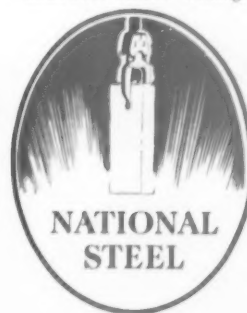
NATIONAL MINES CORP.

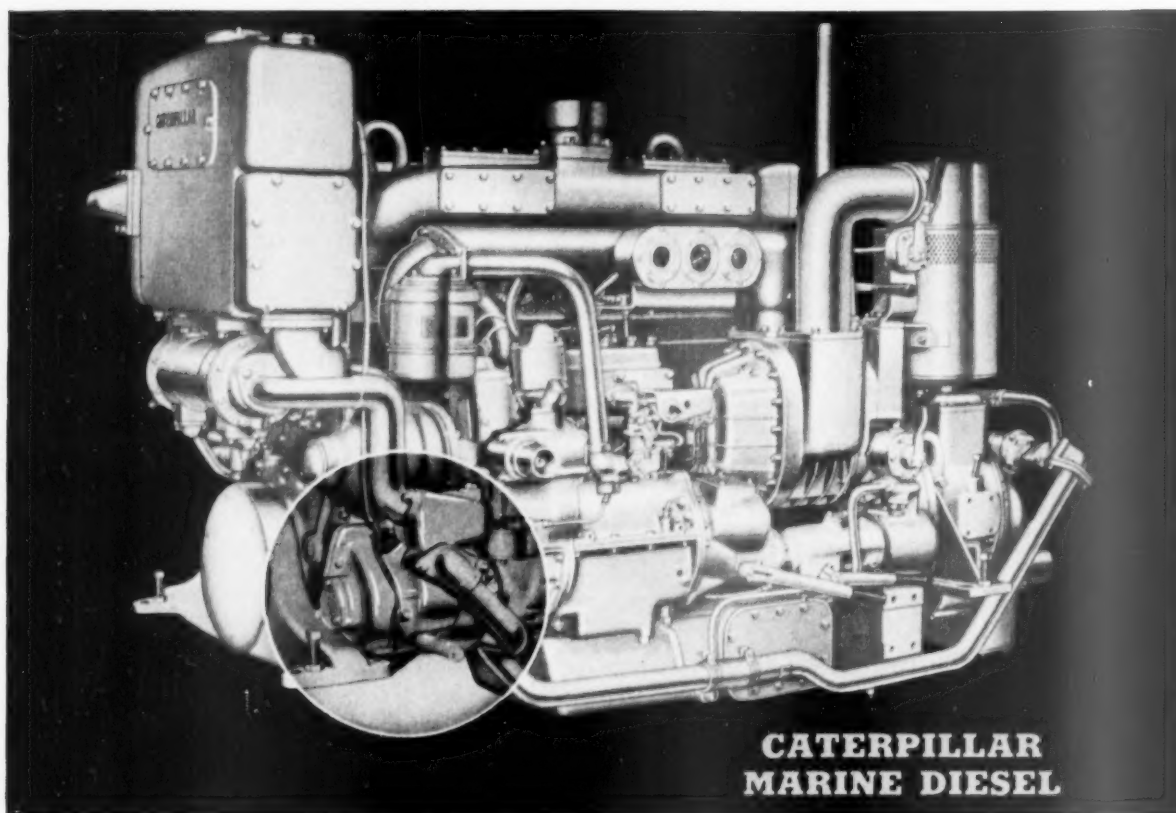
Supplies high grade metallurgical coal for the tremendous needs of National Steel mills.



NATIONAL STEEL PRODUCTS CO.

Houston, Texas. Warehouse and distribution facilities for steel products in the Southwest.





National Bearing Castings Help Cool "Cat" Engines

National Bearing Division's foundry skill permitted a new design in pump efficiency and compactness.

This extremely compact 170 horsepower Marine Diesel Engine, with special coolant pump, is a new design in efficiency by Caterpillar Tractor Co., Peoria, Illinois, makers of famous "Caterpillar" Diesel Engines, Tractors, Motor Graders, and Earthmoving Equipment.

Unusual size restrictions were specified in the coolant pump housing. It had to be of tough, durable bronze, highly resistant to corrosion by raw sea water, and painstakingly cast as the housing component for a very compact coolant pump, capable of delivering 100 gallons per minute. The housing casting design was unusually intricate, with wall thicknesses exactly $\frac{1}{4}$ " in some areas, $\frac{3}{32}$ " in others. The mold for each casting required 14 cores—all perfectly positioned, as the

slightest misalignment would be ruinous. And, housings had to be cast to minimize machining.

"Caterpillar" selected National Bearing Division to provide these special bronze pump housings. We were chosen for proven ability to produce top quality castings, our unique core facilities, and our experience in applying over 50 years of specialization to customers' problems.

Our bronze pump housing castings met—and continue to meet — "Caterpillar's" specifications for quality, tolerance, and minimum machining in every respect.

If your product includes copper, bronze, or other copper-base castings, it will be worth your while to investigate National Bearing Division. We produce copper-base castings, large or small, with any degree of finish, to precision specifications. And, because we are set up for production runs, we can probably save you dollars.

Write to National Bearing Division for complete information and your copy of our catalog.

AMERICAN

Brake Shoe

COMPANY

NATIONAL BEARING DIVISION

4946 Manchester Avenue • St. Louis 10, Mo.

PLANTS IN: ST. LOUIS, MO. • MEADVILLE, PA. • NILES, OHIO • PORTSMOUTH, VA. • ST. PAUL, MINN. • CHICAGO, ILL.

PERSONAL BUSINESS

BUSINESS WEEK

OCT. 10, 1953



For your personal tax advantage, consider the merits of establishing your legal residence in another state. The state next door—or even one 1,000 mi. away—might be the one to brighten your over-all tax picture.

The reason is that the growing need for revenue has not only boosted state taxes; it has also made tax laws more complex.

Greatest impact comes from three main kinds of state taxation: (1) estate taxes; (2) inheritance taxes; and (3) personal income taxes.

Only Nevada has none of the three. All the other states and the District of Columbia impose either an estate or an inheritance tax, or a combination of both. Twelve of these also impose a gift tax, ranging from 1% to 15%.

In some states that impose both inheritance and estate taxes, the taxpayer does get a break. That's because the federal government gives part of the money it collects in estate taxes to the state. This means, in effect, that the taxpayer's estate pays only the amount of federal tax.

Other states that impose both don't have this feature. Rhode Island, for example, uses a separate schedule of rates to figure estate taxes—and has an inheritance tax in addition. Still other states, like New York, have just an estate tax, but it is separate from the federal tax.

Best tax states estate-wise are those where there is only a single estate tax—the one divided between the state and the federal government. Alabama, Arizona, Arkansas, Florida, Georgia, and Mississippi use this method.

But it's equally important to consider personal income taxes. At the moment, 31 states and the District of Columbia impose such taxes, generally patterned after the federal system but at lower rates.

Note that a few states—such as Maryland and Massachusetts—tax investment income at a higher rate than earned income. Other states, like Tennessee and New Hampshire, tax only investment income.

The 17 states that have no personal income tax are: Connecticut, Florida, Illinois, Indiana, Maine, Michigan, Nebraska, Nevada, New Jersey, Ohio, Pennsylvania, Rhode Island, South Dakota, Texas, Washington, West Virginia, and Wyoming. (Note that if you work in a state that has such a tax, you will have to pay it—even if you live in a nontax state.)

Of the 31 states that do impose such taxes, 20 allow the deduction of federal income taxes in computing net income for state tax purposes. You can't take this deduction in California, Maryland, Mississippi, New Hampshire, New York, North Carolina, South Carolina, Tennessee, Vermont, and Virginia.

Clearly, the two best states to live in from an over-all tax standpoint are Nevada (which has none of the three types of taxes) and Florida (which has no income tax and has an estate tax only for the estate tax credit).

No matter where you live, watch out for this pitfall: Two or more states might claim that you lived in them at the time of your death. That can mean double estate or inheritance taxation. You can best avoid such a situation by getting sound legal advice.

You'll need such advice, too, in choosing any state other than Nevada

PERSONAL BUSINESS (Continued)

BUSINESS WEEK

OCT. 10, 1953

or Florida for your residence. Only an expert analysis of your particular financial situation will show whether or not you will benefit, tax-wise, by establishing residence in a certain state.

Note this final point: **Eight cities are now imposing personal income taxes.** Rates range from a low of one-half of 1% to a high of 1¼%. The cities are Columbus, Dayton, Toledo, and Youngstown, Ohio; Louisville, Ky.; Philadelphia (1¼%), Scranton, Pa.; and St. Louis.

(How to become a legal resident of a certain area will be a Personal Business subject in the near future.)

—●—
Some car owners should benefit immediately from the general lowering of automobile liability rates—even if they have already renewed their insurance. Others may not be affected by the change for nearly a year.

It depends on two things: (1) when the rules go into effect in your state; and (2) when your insurance came up for renewal.

The rating bureaus that make the changes have arbitrarily set the 20th of the effective month as a dividing line. Thus, say the new rates and rules went into effect in your state on Sept. 21. If your policy became effective between Aug. 1 and that date, it could be rewritten at the lower rate from the date of its inception.

You get more of a break if the rules went into effect on Sept. 19. In this case, policies written back as far as July 1 can be rewritten on the basis of the new rules—and you benefit accordingly.

Note, however, that not all rates will be lowered; some will actually increase. (Massachusetts companies, for example, want a 20% boost because of a high accident rate.)

But in such cases you would not have to accept these higher rates until your policy comes up for renewal next year.

—●—
The record companies have lately gone in heavily for reissues of popular music as played in the 1930s and early 1940s. Latest—and biggest—is RCA-Victor's Limited Edition (60,000) of the late Glenn Miller's recordings.

You can get the album either on five 12-in. LPs, or 14-extended play (45 rpm.) disks. It contains 70 of Miller's tunes, over half of them never before released. The album retails for \$24.95.

Don't overlook the recent Benny Goodman albums from the same era. Columbia has put out two 12-in. LPs—one of Goodman playing Fletcher Henderson arrangements, the other Eddie Sauter arrangements.

—●—
When you buy whiskey this fall, look for it in decanters. There'll be a wider variety of brands than ever before in such bottles—at no extra price. And even though it costs the distiller more (as much as 50¢ per bottle), whiskey quality will remain the same.

Some of the decanters are faithful copies of period bottles, others are expensive cut glass. Most will be available throughout the year, rather than just at Thanksgiving and Christmas.

Adams
& Westlake
ENGINEERING
DEPARTMENT



"Impossible" problems requested!

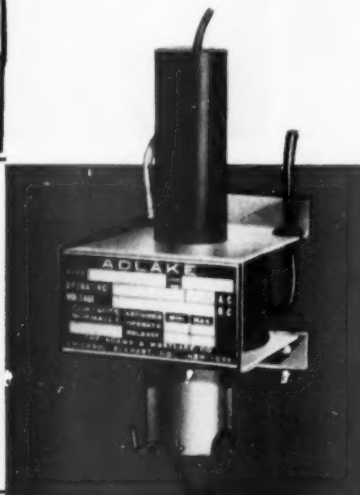
Often, an "impossible" problem is merely one which hasn't yet been brought to the right people. When such problems come in to Adams & Westlake relay engineers . . . problems requiring special relays for unusual installations . . . they promptly cease to be impossible. For, if there is no ADLAKE Relay to answer a specific need, one will be designed and manufactured to fill it!

Every ADLAKE Mercury Relay is hermetically sealed to assure maintenance-free operation under all conditions. Their positive mercury-to-mercury contact gives them an ideal "snap" action . . . and they have been proved to function over a million times without a single failure!

Any "impossible" problems? Our engineers would like to work on them! Just drop a card to The Adams & Westlake Company, 1178 N. Michigan, Elkhart, Indiana. In Canada, write Powerlite Devices, Ltd., Toronto. No obligation, of course.

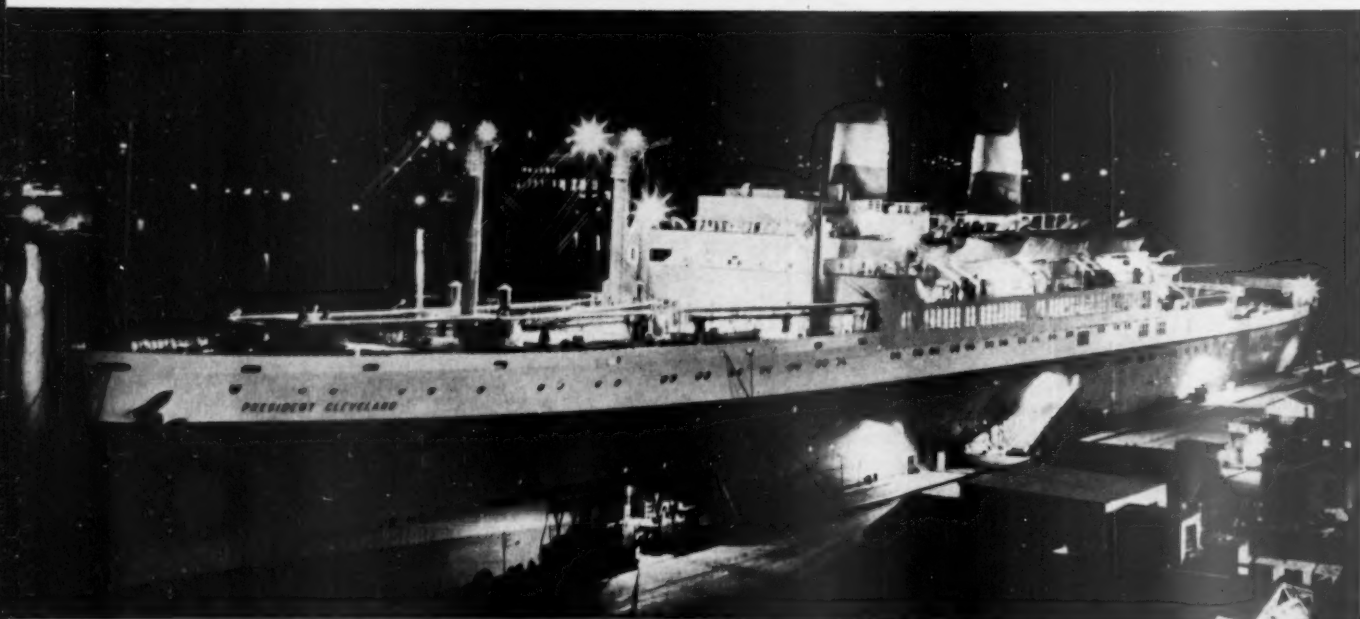
Every ADLAKE Relay Gives You These PLUS Features:

- HERMETICALLY SEALED—dust, dirt, moisture, oxidation, and temperature changes can't interfere with operation.
- SILENT AND CHATTERLESS
- REQUIRES NO MAINTENANCE
- ABSOLUTELY SAFE
- MERCURY-TO-MERCURY CONTACT prevents pitting, sticking, and burning.



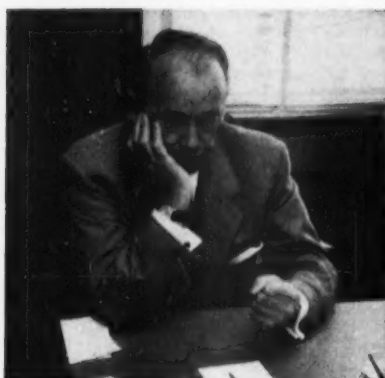
THE **Adams & Westlake** COMPANY

Established 1857 • ELKHART, INDIANA • New York • Chicago
Manufacturers of ADLAKE Hermetically Sealed Relays

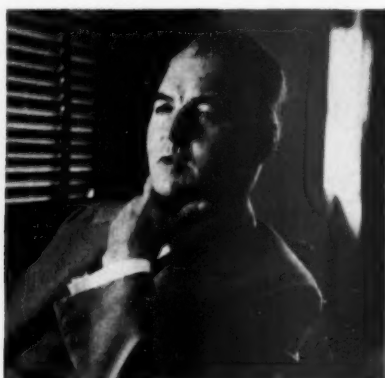


AMERICAN PRESIDENT LINES' big ships today are backed by aggressive selling, controlled budgeting. The payoff: . . .

A Storm-tossed Company Sails Clear



PRESIDENT George Killion, once a politician, knew no more of ships than . . .



CHAIRMAN Ralph Davies, one-time oil man. But they called in experts like . . .



PASSENGER vice-president John Diggs, formerly of Cunard in New York, and . . .



BUDGET director Sheridan Gorman, once in the government's Budget Bureau.

You've got to get hold of some newer ships, the Federal Maritime Board said. Not the least of the reasons is national defense. Draw up a program and let us see it.

This order went down to several government-subsidized ship operators. Among them was American President Lines, a freight- and passenger-carrying outfit that operates mainly off the Pacific Coast. APL now has its proposed program drafted, ready to file in Washington by the deadline date that falls next week.

The details of APL's program are a closely guarded secret. But this much, at least, is no secret at all: The program will mean more expansion—perhaps \$60-million worth—for a company once so badly bruised financially that it could scarcely afford to buy a row-boat.

To people who knew APL in its dark hour of near-bankruptcy, the company's present success is a surprise in itself. Even more surprising, perhaps, is the nature of the two men responsible for much of that success. Neither politician George L. Killion nor oil man Ralph L. Davies (cover) had had any experience in running a steamship company before he boarded APL.

• **Through the Courts**—The story of how Killion and Davies joined up with the company and with each other is woven into a stormy tale of legal controversies, secret meetings, and big financial deals. The story of how they



Putting Air To Work For Kollsman: When accuracy measures $\pm .0002$, dirt specks and moisture are poison.

CONDITIONED AIR

KEEPS INSTRUMENTS ACCURATE 15 MILES UP

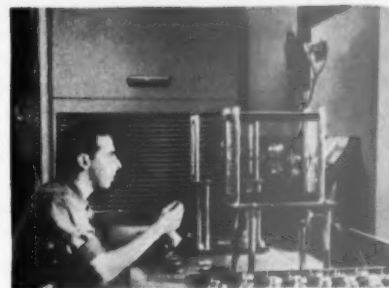
Airborne dirt and moisture are an expensive problem in assembly and testing of delicate aircraft instruments. But Kollsman Instrument Corporation found the economical solution. Fifteen Westinghouse Unitaire® Conditioners now process the air for an entire assembly floor.

By "zoning" this space, each UNITAIRE cools and dehumidifies its assigned area. This gives uniform air conditioning even though heat

and moisture-producing operations on the floor vary. And Unitaire Conditioners are easily moved as production layouts change.

You can get the UNITAIRE now from your Westinghouse Air Conditioning Distributor's stock. Call him today. He's listed in the Yellow Pages of your telephone directory. Westinghouse Electric Corporation, Air Conditioning Division, Hyde Park 36, Massachusetts.

WESTINGHOUSE AIR CONDITIONING



Where heat and humidity hamper skilled hands, a UNITAIRE gives constant temperature-humidity control. That's why Quinn Engineering Co., New York, has added ten more units to another Kollsman plant this year. Completely built by Westinghouse with its own proved parts, the UNITAIRE gives trouble-free service and economical operation.

YOU CAN BE SURE... IF IT'S **Westinghouse**



the closure that
solved BAUSCH & LOMB'S
packaging problem
**CAN HELP YOU CUT
PACKAGING COSTS!**

Columbian® **SNAP ENVELOPES AND FOLDERS**

Bausch & Lomb tried Columbian Snap Envelopes for packaging eyeglass temples. Each envelope holds one dozen temples... has to be opened a number of times before all the temples are used by the dispenser. The Snap Fastener won't wear out... is easy to open and shut... helps keep the dispenser's stock from getting mixed up. Does Bausch & Lomb like the Columbian Snap Envelope? So far, they've reordered three times in less than a year.

Here's another example of how Columbian Snap envelopes and folders, custom tailored to individual requirements, are helping America's leading firms cut costs and improve packaging efficiency. This modern, wafer-thin closure snaps open... snaps closed... can be opened and closed again, again and again... is efficient on envelopes, folders and containers for inter-office mail, samples, resale items and multiple small parts.

See how many advantages Columbian Snap Envelopes provide in your business.

Write today for free samples and complete details.



Here's another famous closure idea to reduce packaging costs!

SELF-SEAL®—the dry seal envelopes. For a quick seal without moisture, staples, strings or clasps, just press flaps together and the envelope is permanently sealed.

AND



UNITED STATES ENVELOPE COMPANY SPRINGFIELD, MASS.
World's largest manufacturer of envelopes—14 plants from coast to coast

"... potentially an explosive situation, but for a long while it lay quiet..."

PRESIDENT LINES starts on p. 186

built APL to its present stature is a story of modern business management.

But the seeds of it all (BW—Oct. 7 '50, p. 42) were sown back in 1938, when Davies was working for an oil company and Killion for a supermarket chain. In that prewar year, APL (then known as the Dollar Line) was some \$7.5-million in debt to the Maritime Commission. To liquidate the debt, R. Stanley Dollar—son and heir of the company's founder—turned over all his family's common stock to the commission. This amounted to 92% of all common outstanding.

It was potentially an explosive situation, but for a long while it lay quiet. The Maritime Commission operated the line just like any other steamship company. Its name was changed to American President Lines. A succession of government-appointed officers saw it through the war, during which it made money hand over fist. By 1945, it was out of the red.

That's when the explosion finally came. The Maritime Commission decided to sell its 92% stock interest, and Stanley Dollar sued. His contention: The stock belonged to him. He hadn't surrendered it in payment of his company's debt, he said; he had merely posted it as collateral until the debt should be paid. The war years, he pointed out, had wiped the debt out completely.

• **New Man**—The Maritime Commission did not agree. Dollar, it said, had surrendered all rights to his stock.

The case raged through the courts for seven years without settlement. During that time, the government continued to operate the company and appoint its presidents. When a vacancy occurred in 1947, President Truman gave the job to the treasurer of the Democratic National Committee. This was a one-time public relations man who had drifted into politics: George Killion.

Killion was a political appointee. But five years after he had moved into the APL post, he was instrumental in taking the company out of the government's hands.

• **Compromise**—At the heart of the switch was a 50-50 compromise between Dollar and the U.S. The way this compromise was worked out has always been a mystery. Here's what happened:

One day in early 1952, Killion got an invitation to visit the late L. Mario Giannini, then president of the Bank

Your business is in the Age of Electronics

10 seconds—all that's needed for production workers to find ~~unseen~~ flaws in grinding wheels—or OK the wheel for shipment. Resonant frequency tells the story—worker reads the answer on one meter, one dial.



**Whether quality control or product research,
electronic tests may save time, cut costs...**

Comparison of resonant frequency sounds complex. Actually, it's a fast, accurate way manufacturers use electronics to inspect, detect flaws, maintain quality in mass-produced products.

Metal castings, concrete or masonry, ceramic or plastic objects, wood laminates—all may be competently inspected by your non-technical personnel using electronic equipment. Tests take only a fraction of the time formerly required; products are not marred or damaged.

Hewlett-Packard is a pioneer and world leader in electronic test instruments—basic measuring tools used in resonant frequency testing and many other manufacturing, research, communication and military applications. Each application differs; -hp- factory-trained engineers can tell quickly whether our instruments can help you enjoy better engineering and production. Write today for information, giving details of your measurement problem.



**ELECTRONIC MEASURING
INSTRUMENTS**

HEWLETT - PACKARD COMPANY

395-B PAGE MILL ROAD • PALO ALTO, CALIFORNIA



Distinctive as your fingerprint...
Rust-Oleum Is An Exclusive Formula Proved
Throughout Industry For Over 25 Years

RUST-OLEUM[®]

STOPS RUST!

Just scrape and wirebrush to remove rust scale and loose particles . . . then brush Rust-Oleum 769 Damp-Proof Red Primer directly over the sound rusted surface. Chemical pre-cleaning and other costly preparations are *not* usually required. Rust-Oleum finish coats in many colors provide double protection, and may be applied by brush, dip, or spray. See Sweets for your nearest Rust-Oleum Industrial Distributor, or write for complete literature today.

Resists Rain, Snow,
Heat, Fumes, Weathering,
Salt Water, etc.,
Indoors and Out.



ATTACH TO YOUR LETTERHEAD—MAIL TODAY!

RUST-OLEUM CORPORATION

2424 Oakten St., Evanston, Illinois

- ☐ Have a Qualified Representative Call
- ☐ Free Survey
- ☐ Complete Literature
- ☐ Nearest Source of Supply



of America. Giannini told Killion that, as a citizen, taxpayer, and San Francisco businessman interested in shipping affairs, he was unhappy about the long-drawn-out court battle involving Killion's company. It was common talk around town, Giannini said—and Killion admitted it—that APL was suffering from the uncertainty of its future. The morale of its staff was low. Potential big freight customers were shying away. Giannini figured something should be done about it, fast—and speed was obviously not to be had from the courts.

The upshot of this talk was another one, between Killion and Stanley Dollar in Giannini's home. This, in turn, led to a third meeting in Washington—between Dollar and then-Secretary of Commerce Charles Sawyer, in whose name the government was waging its fight. Killion introduced the two men, then bowed out and left them to talk in private.

The end result was a compromise. Neither Sawyer nor Dollar was completely satisfied with it, but both knew the only alternative was more years of litigation. The terms: APL's disputed stock would be put up for public bid, and the proceeds would be divided equally between Dollar and the U. S. government.

• **Enter Davies**—Bids were opened Oct. 28 last year, in Washington. The eventual purchaser, with a bid of a little under \$18.4-million, was a syndicate named APL Associates, Inc.

This group had been put together by Ralph Davies. He and Killion had worked together in Washington during the war (Davies had been Petroleum Administrator for War. Killion his assistant), and had got to know each other well. Both had been interested in APL for a long time before Killion was appointed its president. In 1948, Killion had named Davies a director.

When APL's stock went up for bid last year, Davies thought he saw a big chance. He lost no time in exploiting it, set up APL Associates with himself as president. Other major participants were Samuel B. Mosher, old friend of Davies' and president of Signal Oil & Gas Co. (Los Angeles); Marine Transport Lines (New York); and Carl M. Loeb-Rhoades, New York investment firm.

When the syndicate's bid was accepted, it sold half the purchased stock to Mosher's Signal Oil & Gas Co., kept the rest itself. There are now some 25 or 30 stockholders in APL Associates—including Killion, who bought in after the bidding and after Davies formally asked him to stay on as president of APL. Davies became board chairman of the steamship company; Mosher became a director.

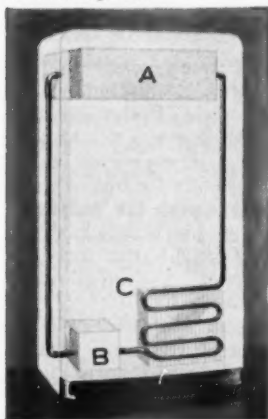
• **Backbone**—By this time, APL was no mean company. True, its years as a



Why your whole family can trust your refrigerator

Your whole family, pampered pets included, depends on your refrigerator to keep perishable foods from spoiling. And your refrigerator never fails them. One big reason is that the manufacturer gives you the protection of leakproof Bundyweld Tubing, to carry cooling refrigeration gases.

In your refrigerator, Bundyweld protects you as it has protected owners of millions of other refrigerators, during the last 20 years.



A This is the evaporator of Bundyweld Tubing, where refrigerant picks up heat from inside refrigerator. Food temperature thus stays at low, safe level.

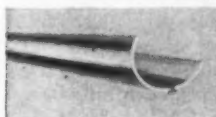
B Hot refrigerant moves down to this compressor, which "squeezes" it, sends it on to condenser unit. Inside compressor are many tubes of leakproof Bundyweld.

C Condenser of leakproof Bundyweld Tubing releases heat to room air, cools refrigerant, which returns to evaporator. No leaks, no tubing troubles, no spoiled food for you.



Inside the walls of your home freezer, as many as eighty-five feet of leakproof Bundyweld Tubing carry heat-absorbing gases to preserve valuable food supplies, at temperatures below zero. These gases can rush through a hole invisible to your eyes. But Bundyweld never gives them an opening. No wonder manufacturers insist on giving you Bundyweld protection in condensers, evaporators, compressors and other tubing parts in freezers and refrigerators.

Why you're safer with Bundyweld Tubing



1. Bundyweld Tubing begins as a single strip of tough, copper-coated steel.



2. We carefully roll the single strip like this, make it into a double-walled tube.



3. We take the tube, fire it in a furnace, where the copper bonds with the steel.



4. Result: Bundyweld Tubing; double-walled, strong, copper-sealed, leakproof.

Bundyweld[®] Tubing

"The lifeline of refrigerators and freezers"
BUNDY TUBING COMPANY
DETROIT 14, MICHIGAN

GLOBE SPRINKLERS



FIREMEN EVERY 10 FEET

ALL WORK DONE BY A SINGLE COMPANY

INTEGRATED design, fabrication, installation... by a company with more than half a century of experience in its operations... assure you a uniformity of quality and performance that can be attained in no other way.

GLOBE aims for *permanency* of protection from FIRE... protection that pays for itself.

When you select a GLOBE engineered system you get the complete package from a single, financially sound company that assumes full responsibility for proper design, materials, installation and performance.

Ask our nearest office for full information.

GLOBE AUTOMATIC SPRINKLER CO.
NEW YORK... CHICAGO... PHILADELPHIA
Offices in nearly all principal cities

THEY PAY FOR THEMSELVES

"... the order reads 'don't pass up any bets ...'"

PRESIDENT LINES starts on p. 186

pawn in a gigantic chess game had hampered it a good deal. But under Killion's able hand, it had come within one step of the queen's row by the time Davies' syndicate showed up to give it the final push.

This was a surprise to many observers. When Truman gave Killion the APL post in 1947, the appointment provoked cynical mirth in San Francisco shipping circles. This company, observers jeered, is obviously a pay window where deserving Democrats go for their rewards. Its \$25,000-a-year presidency is a political plum. This man Killion, for instance, is a career politician with no knowledge of ships whatsoever.

But Killion was willing to learn, and he was not above asking for help. One of the first sources he turned to after his appointment was the man who had been his boss in the supermarket business years before—Lawrence Giles, one-time executive vice-president of Safeway Stores, Inc. Giles knew nothing of ships, either, but he knew much about selling. Killion gave him the job of selling steamship service.

Killion called in other experts, too (pictures, page 180). From the government's Bureau of the Budget he got Sheridan P. Gorman; from another steamship line, passenger-service expert John M. Diggs; from Navy retirement, Commodore George T. Paine.

• **Pusher**—And Killion plugged his idea of hard selling. With the help of Giles and W. Kenneth Barcoe, then vice-president in charge of freight traffic, he set up a whole new sales program for freight.

This involved, among other things, a quota for every sales office and salesman around the world. It also involved a new cooperation between freight and passenger salesmen. If a passenger man meets a likely customer for freight service, he's required to push the lead even though it isn't in his bailiwick. The same goes for a freight man meeting a possible passenger. The order reads "Don't pass up any bets."

On another aspect of hard selling, Killion himself sets an example. Every week when he's in San Francisco, he hosts a lunch for the top executives of some customer company or prospect. And each week, in every city around the world where APL has a sales office, the office head does the same.

These are informal affairs; there's no high-pressure salesmanship during the meal. But the conversation is inevitably on shipping. And after the lunch is over, the host is required to send Killion a written report on it. These

**more years of better service
at lowest cost**



...built into your EDISON batteries

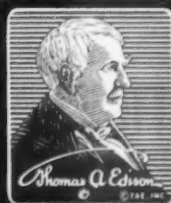
ACTUAL ON-THE-JOB RECORDS ... in plant after plant ... prove that EDISON batteries out-last and out-work other type batteries. Whether you figure years on the job, hours on the job, or tons handled—records prove EDISONS do the job better, longer, at lower cost.

TWELVE TO FOURTEEN YEARS is the life recently reported by a user of more than 50 EDISON batteries. Many users report two to three times longer life with EDISON than with other type batteries. And the only regular attention required is watering, charging and occasional cleaning.

WITH STEEL CONSTRUCTION of cell containers, pole pieces, grids and other structural parts, EDISON batteries are practically indestructible. They're electrically fool-proof.

CUT YOUR HANDLING COSTS with longer lasting, harder working EDISONS ... the batteries with ultimate lowest cost, least maintenance, least downtime. Call your Edison field engineer for specific information regarding your handling problems. Detailed Bulletins S.B. 2039 and S.B. 3808 are yours on request. Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, N. J.

**Most Dependable Power
—Lowest Over-all Cost
... you get both
with an EDISON**



EDISON
Nickel · Iron · Alkaline
STORAGE BATTERIES



1. MARKETS
2. RAW MATERIALS
3. MANPOWER
4. FUEL AND UTILITIES
5. GOOD LIVING CONDITIONS
6. TRANSPORTATION



You get all 6 when you locate in **LACKAWANNA LAND**

Here are *all* the requirements for a good location for light or heavy industry... for efficient *manufacturing*, for convenient *warehousing*, for speedy and economical *distribution*.

Here in Lackawanna Land is an abundant supply of the world's finest anthracite fuel... lime-stone, salt, water, and other natural resources. Here are industrial water, low-cost electric power, gas and coke. A very large supply of skilled labor is available, deep-rooted and permanent in the area.

Close by are the great consumer markets of the East with easy access to world markets through the Port of New York. The Lackawanna Railroad provides fast and dependable freight service through the rich industrial area between New York and Buffalo and connects with a network of 36 other major railroads whose lines extend to every section of the country.

**For detailed confidential information, without obligation,
please contact:**

INDUSTRIAL DEVELOPMENT DEPARTMENT
Room 1728, 140 Cedar Street, New York 6, N. Y.
Phone BRclay 7-2500

Lackawanna Railroad

SHORTEST RAIL ROUTE BETWEEN NEW YORK AND BUFFALO

**"... on a strict budget,
something it never had be-
fore..."**

PRESIDENT LINES starts on p. 186

reports are card-indexed in such a way that, at any later date, Killion can dip into the files and get full details on each company and its freight problems.

• **The Other Side**—APL's passenger service gets equally thorough treatment. Killion's passenger vice-president, John Diggs, came to the company with a fund of experience on luxury liners in the Atlantic. Before Diggs had been with APL long, he and Killion uncorked some innovations calculated to dazzle passengers on round-the-world and trans-Pacific cruises.

When a passenger comes aboard one of APL's liners, he finds personalized stationery waiting for him in his room. He gets a personalized leather folder for his tickets and passport. When a ship stops at each port along its route, he finds that his home-town Sunday newspaper has been flown to meet him. At the end of the voyage he gets a personal letter of farewell and thanks from the ship's captain, and a questionnaire asking him how he enjoyed the trip.

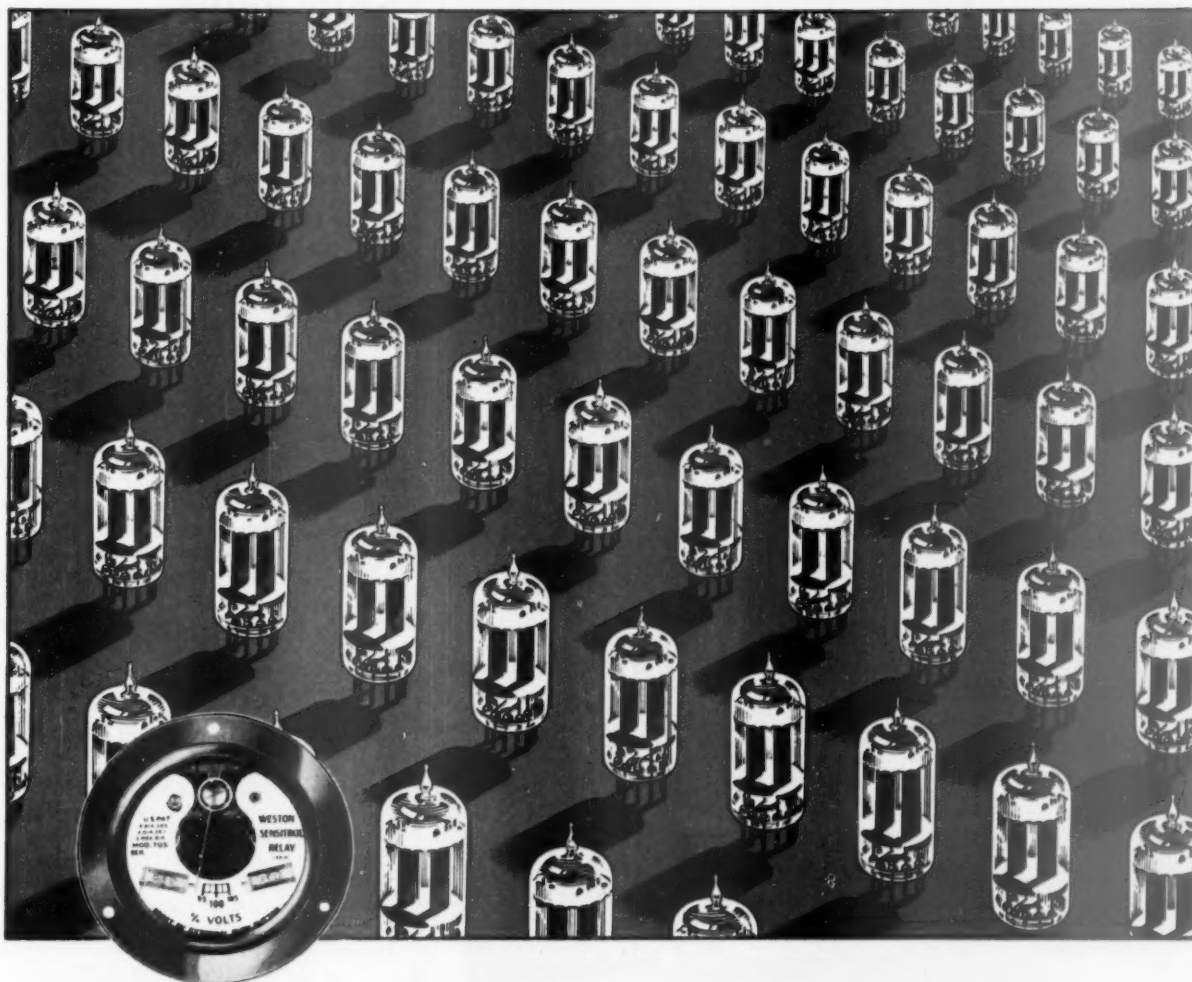
• **Costs**—All this costs money, but the company isn't spending over its head. Sheridan Gorman, whom Killion hired away from the government's Budget Bureau, has put APL on a strict budget—something it never had before. There's a budget not only for the company as a whole, but for each ship, each voyage, each ship department.

It took Gorman nine months, and a good deal of wrangling with department heads, to work out this system and get it operating. Even after it was in force, there was much grumbling. But sooner or later, each department head decided he might as well learn to live with the budget. He began combing his department for ways to trim waste, cut costs.

And the payoff is in cold figures. Killion cites the expense of running APL's two luxury liners, the President Cleveland and the President Wilson, on identical voyages in 1948 and 1953.

Wage costs in that five-year span jumped 59%. This was beyond APL's control. But the outlay for food on APL's ships dropped 4%—during a period when food prices were rising sharply. And the outlay for fuel oil—17% of the total cost of a voyage—dropped 7½%.

• **Value**—As a result of all these improvements in the company's services and operations, its value has jumped tremendously. In the years Killion has been with APL, its net worth has risen 60%—from \$23-million to \$36-million.



MONITOR OF 3500 ELECTRONIC TUBES

in the new IBM Electronic Data Processing Machines

Ever wonder what makes these new "electronic brains" tick . . . what's *inside* the new IBM Electronic Data Processing Machines that will perform more than 16,000 addition or subtraction operations a second?

At the heart of these machines are computing and storage chests containing 3500 electronic tubes and over 12,000 diodes . . . thus giving them tremendous computing speed, enormous storage capacity, and ultra-fast access to stored data.

The protection of this intricate electronic circuit against oversupply or loss of D-C power presents a highly critical problem. For, to protect the tubes and insure accuracy in all computations, all voltages employed must be correct and available at all times, and differing voltages applied and removed in their correct order.

So the "voltage monitors" employed in these machines are WESTON Sensitrol® Relays . . . *permanent* components that instantly detect voltage variations and sound an alarm, or stop the machine, before damage or inaccuracies can occur.

In this application Sensitrol Relays are employed because of their *permanency*, unfailing dependability, and their exclusive magnetic contacts. In other applications they are used for their high sensitivity . . . operating at values as low as $\frac{1}{2}$ microampere or $\frac{1}{2}$ millivolt, yet handling substantial wattage at 110 volts on their unfailing contacts.

Sensitrol Relays are just one member of a line of sensitive instruments which have kept WESTON leader in precise instrumentation since 1888 . . . WESTON Electrical Instrument Corp., 614 Frelinghuysen Ave., Newark 5, N. J.

4828

®Reg. T.M.



WESTON *Instruments*

. . . Indicate — Record — Control



THINSTEEL
TRADE MARK



the Cold Metal Products co.
YOUNGSTOWN 1, OHIO

New York • Chicago • Indianapolis • Detroit
St. Louis • Los Angeles • Cleveland • San Francisco

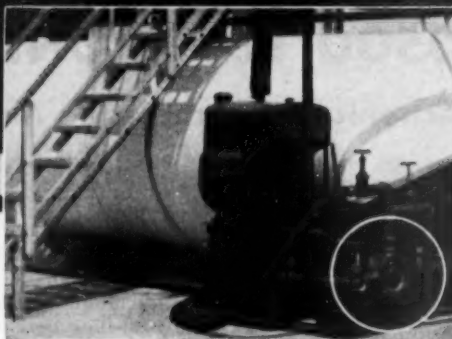
LOW CARBON, HIGH CARBON (Annealed or Tempered) STAINLESS AND
ALLOY GRADES, ELECTRO ZINC COATED ARE AVAILABLE FROM:
THE COLD METAL PRODUCTS CO., of CALIFORNIA, 6400 McKinley Avenue, Los Angeles
Phone: PLanetown 3-1291

THE KENILWORTH STEEL CO., 730 Boulevard, Kenilworth, New Jersey
Phones: N. Y., COrtlandt 7-3427; N. J., UNionville 2-6900
PRECISION STEEL WAREHOUSE, INC., 4455 W. Kinzie, Chicago • Phone: COlumbus 1-2700



Above—Dowell's Stratafrac chemical, Jel-X, used to increase production of oil wells drilled in sandstone. Right—Jel unit designed and built by Dowell engineers uses Viking Pump (circled) in blending and mixing jel with sand.

VIKING PUMPS HANDLE JEL-X 500 for Dowell, Incorporated



Dowell's Jel-X 500 is a kerosene-acid jel with enough "body" to carry sand in suspension, yet smooth and flowable enough to be pumped. Use of this substance recovers thousands of barrels of oil that would otherwise be lost. Viking Pumps are used because of their smooth, non-pulsating action. If you have a pumping problem, let Viking help solve it. To start write now for bulletin series 535.



VIKING PUMP COMPANY
CEDAR FALLS, IOWA

THE ORIGINAL "GEAR-WITHIN-A-GEAR" ROTARY PUMP

Ship Battle

U.S. seeks to repossess nearly 75 ships it sold in postwar years. But ships can still go to sea.

The U.S. government is right smack in the middle of one of the biggest repossession drives ever. At ports on both coasts it is seizing back war surplus tankers and freighters that the government itself sold to private interests after World War II.

Justice Dept. lawyers figure that before they're through they're going to take back as many as 70 ships. All told, title to \$100-million worth of ships is involved.

Basically, the government says that the people who bought these ships—or who now control them—engaged in a wide variety of shenanigans to get the ships in violation of U.S. laws. The laws say, in effect, that only companies owned or controlled by Americans can buy or operate such ships.

• **Resistance**—Naturally, this huge legal operation is being contested by the companies that maintain they are the legal owners of the ships.

Behind this summary is a maze of confusion made up of complex shipping laws, interpretations of the laws, dummy corporations, international shipping promoters—complicated by a tendency of almost everyone involved to disclose something less than all he knows.

Even the identity of the real owners of most of these ships is in question. Many of the companies were organized just for the purpose of buying or operating them.

• **First Test**—The first test of the government's repossession program is already under way—and it's typical of the complexities involved.

The tanker Meachem was purchased in 1948 in a three-cornered deal involving the United Tanker Corp. (organized by Newbold Morris' law firm), the China International Foundation, Inc., and the American Overseas Tanker Corp. The relationship of these companies to each other, and the Meachem, and other companies involved is still being argued about. In fact, the owners and the government disagree on almost every "fact."

The Meachem seizure in 1951 was the work of the Democrats under Harry Truman. But it was the only ship they took back. One reason they didn't press seizures was their doubt they could unload the ships on the market.

This seizure—and later ones—is based on the shipping act of 1916, which limited sales of government-subsidized

Flying "taxis" that open up new roads

Miraculous rescue flights over Korean combat zones put helicopters in the spotlight. Soon, 'copters like these three leaders will open up more and more new "roads" in America's skies.

Powered by always dependable, air-cooled engines built by Lycoming, these helicopters are already used by industry as flying "taxis" to transport executives from plant to plant. Soon, major cities will get aerocab service from midtown terminals to airport flight lines. Later, every state in the union will get super "taxi" service between cities . . . and even commuter service from suburbs to hearts of business sections.

Dependable Lycoming power has helped these leading helicopters achieve outstanding safety records. This is another Lycoming contribution to America's progress in the air; another reason why we say: "For efficient, dependable, air-cooled power . . . look to Lycoming!"

Air-Cooled Engines for Aircraft and Industrial Uses
Precision-and-Volume Machine Parts
Gray-Iron Castings • Steel-Plate Fabrication

FOR RESEARCH • FOR PRECISION PRODUCTION

LOOK TO **LYCOMING**

Lycoming-Spencer Division
Williamsport, Pa.



Bridgeport Lycoming Division
Stratford, Conn.

*Wright-Cyclone engine, built by Lycoming under license from Curtiss-Wright Corporation, Wright Aeronautical Division.



DOMAN L2-5. Powered by a Lycoming 400-h.p. engine. Speed, 110 m.p.h. Range, 220 miles.

KAMAN K-240. Powered by a 250-h.p. Lycoming engine. Speed, 90 m.p.h. Range, 210 miles.

PIASECKI H-21. Powered by a 1425-h.p. Lycoming-built engine.* Speed, over 115 m.p.h. Range, over 200 miles.

clues:

TO THE SOLUTION OF— MANAGEMENT MEN'S PROBLEMS.

Published every week—closes 12 days in advance. Rate—\$5.00 per line (\$2.50 per line for positions wanted ads), minimum 2 lines. Allow 5 average words as line; count 2 words for box number. Write for special rates for Business Services advertisements. Address box number replies c/o BUSINESS WEEK to the office nearest you. NEW YORK, 330 W. 42nd St., CHICAGO, 520 N. Michigan Ave., SAN FRANCISCO, 68 Post St.

EMPLOYMENT

Positions Vacant

Situation vacant for highly qualified and experienced gentleman to work as general manager in a big cotton textile mill in India employing nearly 10,000 workers. Previous experience of cotton textile preferred, but is not absolutely essential. Long administrative experience in big industrial units, however, necessary. Salary nearly \$25,000 per annum depending on qualifications and experience with a car and free fully-furnished air-conditioned quarters and a Frigidaire. Applications will be treated confidentially. Apply with full particulars and latest photograph to P-9227, Business Week.

Area Accountant, permanent position for a man with heavy experience in customer accounting in the utility industry. Good educational background in accounting required; college degree desirable. We are a natural gas utility company engaged in production, transmission and distribution in four states. We offer a full program of employee benefits. Apply by mail to: Southern Union Gas Company, Burt Building, Dallas, Texas, Attention: Mrs. Singer.

Selling Opportunities Offered

National Distributor wanted for patented items in the low-priced field for household and commercial use. Items are tested and approved and have been marketed on a local basis. Excellent for department stores, hardware stores and specialty salesman and mail order. Box 336, West Hartford, Connecticut.

To a successful salesmanager or salesman we offer an opportunity to own an exclusive district franchise for the distribution of Connolly Pul-Ad. Nationally sold device that prints advertising on wrapping paper as used. Needed by all wholesale, retail and industrial firms. Ten-year continuing income from each sale. Successfully tested program includes sales training supervision, advertising and merchandising methods. Profit potential \$20,000 upwards, depending extent of territory. Reasonable capital investment, fully protected by necessary selling inventory. Send complete resume, financial and other references, to: Franchise Division, J. J. Connolly, Inc., 457 West 40th Street, N. Y. 18, Phone CH-4-5006.

Positions Wanted

Junior Executive—39, well-rounded experience in management controls, costs, finance, sales and labor relations; covers small, medium, large corporations, national and international scope, and military procurement. PW-9404, Business Week.

Controller—ready for "tough assignment." National utility, industrial experience all functions, management level. Institute member. Educated Harvard, accounting, finance, law. Relocate, domestic, foreign. PW-9386, Business Week.

Selling Opportunities Wanted

Manufacturers' Agent in St. Louis wants hardware or die-casting line for aircraft automotive, and electrical customers. AAA customer list in Kansas City, Des Moines, Chicago & Minneapolis. RA-9161, Business Week.

Manufacturers Representative: Three graduate engineers 20 years established sales engineering experience New York Metropolitan area, want line power plant equipment supplementing existing lines. RA-9171, Business Week.

Mfgs. agent and chemical engineer in Denver wants farm or industrial lines. RA-9393, Business Week.

Sales Organization, eight salesmen covering Wisconsin, seeks specialty items. SA-9465, Business Week.

SPECIAL SERVICES

Complete Tooling programs performed on a firm price guaranteed basis. Excellent tool design staff plus 30 skilled tool and die makers at your service. Fast delivery. Large work a specialty. Mechanera Incorporated, Municipal Airport, Bridgeport, Connecticut.

Need a market survey abroad? Thorough down-to-earth studies made in any country. Representatives all over the world. For details, write Overseas Business Services, McGraw-Hill International Corporation, 330 West 42nd St., New York 36, New York.

Registered Patent Attorney

Patent Information Book, without obligation. Pat. Atty. & Advisor Navy Dept. 1930-47, Assoc. Examiner Pat. Off. 1922-29, Gustav Miller, Patent Lawyer, 103 BW2 Warner Bldg., Wash. 4, D. C.

Notice to Bridge Engineers: Bids will be received on October 27, 1953 for engineering services in connection with a double leaf bascule superstructure and supporting piers for a bridge over the Intracoastal Waterway near Charleston, S. C. Details may be obtained from the undersigned, C. R. McMillan, Chief Highway Commissioner, S. C. State Highway Department, Columbia, S. C.

Stamping work wanted, capacity up to 100 tons. Also have 2—450 tons coining presses. Deluxe Stamping Co., 589 East 10-Mile Road, Hazel Park, Michigan. Telephone: JOrdan 4-6432.

EQUIPMENT

For Sale

Reconditioned Intercoms at \$19.95. Manufacturer will sacrifice nationally-known Talkatron, 2-way talking, 2-station intercommunications sets, regularly at \$40.00 now at \$19.95. Small compact units, housed in handsome gray wrinkle, sturdy steel cabinets. Completely rebuilt and reconditioned. New tubes and parts. Carries same written guarantee as new equipment. Operates on AC or DC. Easy to install. High amplification. So sensitive, it picks up a whisper or even the drop of a pin. Transmits voice clearly and distinctly. Can be operated at distance of 1/4 mile. Units can be used in systems of 2 to 100 stations. 2-station set with instructions and guarantee, \$19.95 FOB Chicago factory. Extra substations \$9.95 each. Inside 3-conductor wire designed for equipment 5¢ per foot. Outside wire 8¢ per foot. For information on multiple station system, send rough layout and full details. Cambridge Co., 2559 N. Clark St., Chicago. Eastgate 7-4410.

BUSINESS OPPORTUNITIES

Save up to 50% On Your Christmas Gift Requirements. Choose from over 1,000 nationally advertised items including Appliances, Benrus Watches, Parker Pen Sets, Evans Lighters. We have catered to business firms for over 20 years. Write For Our New Free Catalog! O. Faust, Dept. W-9, 223 N. 8th Street, Philadelphia 6, Pa.

GIFTS

Puzzled—about that perfect Xmas gift? Give Roundelay, the intriguing musical cigarette carousel, with six hidden doors that open and close to a delightful tune. Send for literature. Prim, 200 W. Ohio, Chicago, Ill.

"... the fabulously rich Onassis and his brother-in-law each control between 20 and 30 ships . . .

SHIP BATTLE starts on p. 196

ships to corporations with American officers and controlled by American citizens. Later amendments toughened up the law. The Meacham seizure was upheld by a district court. It was appealed and a ruling has been expected for several weeks from the Fourth Circuit Court of Appeals in Charlotte, N. C. This decision will be appealed to the Supreme Court, no matter who wins.

• **One-man Drive**—The seizure drive picked up steam under the Eisenhower Administration. Mostly, it's the pet project of Assistant Attorney General Warren E. Burger, new chief of the Civil Division. Burger is convinced that the ship purchasers have been in clear violation of the law, and that problems of disposing of the property shouldn't block prosecution of violators. Also, Burger has worked out a plan that permits the ships to go to sea again.

• **The ship company must put the ship into custody of the court and appoint a captain and a first mate who are U. S. Naval Reservists, approved by Justice.** The captain and first mate then are sworn in as special U. S. deputy marshals. This is to assure that in a threat of war or open war, the ship's officers would respond quickly to U. S. naval orders to return to an American port.

• **The ship company assigns a ship's agent—approved by Justice and the court—to handle all profits earned on the ship's voyage.** The agent is also sworn in as a U. S. deputy marshal. He puts all the money into a special account in a bank—pays all operating costs from it, such as the crew's wages. Any payments caused by extraordinary circumstances must be approved by the court.

• **The ship company may not make any charter for the ship unless approved by the U. S. Maritime Administration and Justice.** The ship may travel only between ports and carry only cargo approved by Justice.

• **Whose Ships?**—Who actually controls the ships in question? That's the basic question at issue in these cases. And it is a tough one to answer. The Chinese group connected with Morris had three. Department officials privately believe the fabulously rich Aristotle Socrates Onassis, new Monte Carlo landlord, and his brother-in-law, Stavros Niarchos, each control between 20 and 30 ships—though both of them deny this.

ADVERTISERS IN THIS ISSUE

Business Week—October 10, 1953

ACME STEEL CO. 107	GENERAL ELECTRIC CO. 117	THE NEW BRITAIN MACHINE CO. 36
Agency—Leo Burnett Co., Inc.	Agency—G. M. Hasford Co.	Agency—Wilson, Haight, Welch & Grover, Inc.
ADAMS & WESTLAW CO., INC. 185	GENERAL ELECTRIC CO. (X-RAY DEPT.) 124	N. Y. STATE DEPT. OF COMMERCE 120
Agency—Henri, Hurst & McDonald, Inc.	Agency—Klaus Van Peterson-Dunlap, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.
ADVERTISING LEATHER SPECIALTY CO., INC. 172	GENERAL FIREPROOFING CO. 102	NORTON COMPANY AND BEHR-MANNING CORPORATION 13
Agency—Pace Adv. Agency, Inc.	Agency—The Griswold-Eckelman Co.	Agency—James Thomas Chirug Co., Inc.
AIR EXPRESS DIV. OF RAILWAY EXPRESS AGENCY, INC. 26	GENERAL MOTORS CORP. (CHEVROLET MOTORS DIV.) 20-21	THE OHIO CRANKSHAFT CO. 123
Agency—Robert W. Orr & Assoc., Inc.	Agency—Campbell-Ewald Co.	Agency—Carr Liggett Adv., Inc.
ALEMITE DIV. OF STEWART WARNER 157	GERITY-MICHIGAN CORP. 169	THE OSBORN MFG. CO. 64
Agency—MacFarland, Aveyard & Co.	Agency—Ross Roy, Inc.	Agency—The Griswold-Eckelman Co.
ALUMINUM IMPORT CORP. 71	GERLINGER CARRIER CO. 104	PAGE FENCE ASSOC. 120
Agency—G. M. Hasford Co.	Agency—Hal Short & Co., Inc.	Agency—Reincke, Meyer & Finn, Inc.
AMERICAN BOTTLERS OF CARBONATED BEVERAGES 96	GESTETNER DUPLICATOR CORP. 183	PEERLESS PUMP DIV. FOOD MACHINERY & CHEMICAL CORP. 140
Agency—James H. Flanagan Adv. Agency	Agency—Gardner Advertising Co.	Agency—The McCarty Co.
AMERICAN DIAMOND SAW SALES 134	THE GLIDDEN CO. 115	PENNSYLVANIA FARMER 143
Agency—Hargreaves Adv.	Agency—Meldrum & Fawcett, Inc.	Agency—The Huchen Co.
AMERICAN HOTEL CREDIT CORP. 44	GLOBE AUTOMATIC SPRINKLER CO., INC. 192	PENNSYLVANIA SALT MFG. CO. 22
Agency—Kochl, Landis & Landan, Inc.	Agency—Meech & Pratt Co., Inc.	Agency—Gears-Marston, Inc.
AMERICAN-MARIETTA CO. 95	J. W. GOLDSBURY CO. 134	PEOPLES FIRST NATIONAL BANK & TRUST CO. 175
Agency—Turner Adv. Agency	Agency—Phil Bradley Advertising	Agency—Ketchum, MacLeod & Grove, Inc.
ANCHOR PLASTICS CO. 156	GOODYEAR TIRE & RUBBER CO., INC. (CHEMICAL DIV.) 19	PITTSBURGH CORNING CORP. 91
Agency—Conti Adv. Agency, Inc.	Agency—Kutner Agency, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.
ARMCO STEEL CORP. 89	W. T. GRIMM & CO. 174	THE PURE OIL CO. 15
Agency—N. W. Ayer & Son, Inc.	Agency—J. H. Pershad Co.	Agency—St. George & Sons, Inc.
ARMO EQUIPMENT CORP. 165	GUARANTY TRUST CO. OF NEW YORK 67	QUAKER RUBBER CORP. 74
Agency—Hesson-Reichert, Inc.	Agency—Albert Frank-Guenther Law, Inc.	Agency—Fox & Mackenzie
AUTOMATIC ELECTRIC SALES CORP. 80	HAMILTON MFG. CORP. 178	QUINCY COMPRESSOR CO. 173
Agency—Pittman, Taylor, Inc.	Agency—Ruthrauff & Ryan, Inc.	Agency—J. W. Ham
AUTOPOINT CO. 134	HARTSCHIGER CORP. 100-101	RADIO CORPORATION OF AMERICA 6-7
Agency—Gordon Best Co., Inc.	Agency—The Huchen Co.	Agency—J. Walter Thompson Co.
BAKELITE CO., DIV. OF UNION CARBIDE & CARBON CORP. 151	H. M. HARPER CO. 51	RANSBURG ELECTRO-COATING CORP. 135
Agency—J. M. Mathes, Inc.	Agency—The Huchen Co.	Agency—H. L. Ross Adv. Inc.
BANK OF AMERICA 41	HARVEY ALUMINUM (DIV. OF HARVEY MACHINE CO., INC.) 121	REEVES PULLEY CO. 79
Agency—Chas. H. Stuart	Agency—Hixson & Jorgensen, Inc.	Agency—Caldwell, Larkin & Co., Inc.
BANKERS TRUST CO. 1	HERCULES POWDER CO. 16	RELANCE ELECTRIC & ENGINEERING CO. 87
Agency—Cowan & Dengler, Inc.	Agency—Fitz & Smith, Inc.	Agency—Meldrum & Fawcett, Inc.
BARIIUM STEEL CORP. 42	HEWITT-ROBINS, INC. 159	REMINGTON RAND, INC. 105
Agency—James Thomas Chirug Co., Inc.	Agency—Fuller & Smith & Ross, Inc.	Agency—Leeford Adv. Agency, Inc.
BERLITZ SCHOOL OF LANGUAGES 134	HEWLETT-PACKARD CO. 189	REVERE COPPER & BRASS, INC. 57
Agency—N. W. Ayer & Son, Inc.	Agency—L. C. Cole Co.	Agency—St. George & Sons, Inc.
BETHELEM STEEL CO. 81	E. F. HOUGHTON & CO. 34	ROCK OF AGES CORP. 154
Agency—Young & Rubicam, Inc.	Agency—Beaumont, Heller & Spelling, Inc.	Agency—Harold Cabot & Co., Inc.
BIGELOW SANFORD CARPET CO. 77	HOWELL ELECTRIC MOTOR CO. 50	ROME CABLE CORP. 144
Agency—Young & Rubicam, Inc.	Agency—Brooks, Smith, French & Insurance, Inc.	Agency—Charles E. Hummel & Co., Inc.
THE BLACK & DECKER MFG. CO. 56	INDUSTRIAL CRANE & HOIST CORP. 96	ROTARY LIFT CO. 132
Agency—Van Sant, Dugdale & Co., Inc.	Agency—Vernon S. Weller Adv.	Agency—Greenhaw & Itush, Inc.
BOWER ROLLER BEARING CO., 2nd Cover	INTERNATIONAL BUSINESS MACHINES CORP. 157	RUST-OLEUM CORP. 190
Agency—MacMurtrei, John & Adams, Inc.	Agency—Cecil & Presbury, Inc.	Agency—O'Grady-Anderson, Inc.
BROWN BOVERI CORP. 126	INVINCIBLE METAL FURNITURE CO. 128	JOS. T. RYERSON & SON, INC. 35
Agency—Carl Adv. Agency	Agency—Klaus Van Peterson-Dunlap, Inc.	Agency—Aubrey, Finlay, Marley & Hodgson, Inc.
BROWN & ROOT, INC. 133	JACK & HEINTZ, INC. 163	SCOTT AVIATION CORP. 172
Agency—Laughlin-Wilson-Haxter & Persons	Agency—Fuller & Smith & Ross, Inc.	Agency—Molten F. Hall Adv. Agency, Inc.
BUNDY TUBING CO. 191	JARECKI MACHINE & TOOL CO. 131	SCRIBE CORP. 88
Agency—Brooks, Smith, French & Insurance, Inc.	Agency—The Huchen Co.	Agency—Arthur E. Wilk
THE E. W. BUSCHMAN CO. 168	JOHNS-MANVILLE CORP. 11	SHAW-BARTON, INC. 184
Agency—The S. C. Baer Co.	Agency—J. Walter Thompson Co.	Agency—Mumford, Mullay & Nichols, Inc.
BUTLER MANUFACTURING CO. 86	JONES & LAUGHLIN STEEL CORP. 60	THE SHEFFIELD CORP. 130
Agency—Hixson & Jorgensen, Inc.	Agency—Klaus Van Peterson-Dunlap, Inc.	Agency—Witte & Burden
CAMERON IRON WORKS, INC. 69	KALAMAZOO LABEL CO. 156	SIMMONS MACHINE TOOL CORP. 106
Agency—Boone & Cummings	Agency—William J. Williams	Agency—Fred Witter Advertising
CELANESE CORP. OF AMERICA 33	KENNECOTT COPPER CORP. 47	SOCONY-VACUUM OIL CO., INC. 3rd Cover
Agency—Edmund P. & Co., Inc.	Agency—Cunningham & Walsh, Inc.	Agency—Campton Adv., Inc.
CHASE NATIONAL BANK, INC. 153	WALTER KIDDE & CO., INC. 116	STATE OF LOUISIANA 116
Agency—Kenyon & Eckhardt, Inc.	Agency—Cunningham & Walsh, Inc.	Agency—Whitlock-Seliger, Inc.
CHESAPEAKE & OHIO RAILWAY CO. 63	LACKAWANNA RAILROAD CO. 194	STONE & WEBSTER ENGINEERING CORP. 142
Agency—Hobbs, Connelley & Co., Inc.	Agency—Joseph P. & Co., Inc.	Agency—Harold Cabot & Co., Inc.
CLEVELAND PNEUMATIC TOOL CO. 179	THE LAMB ELECTRIC CO. 10	STROMBERG-CARLSON CO. 94
Agency—Meldrum & Fawcett, Inc.	Agency—The Bayless-Kerr Co.	Agency—Charles E. Hummel & Co., Inc.
CLUES (CLASSIFIED ADVERTISING) 198	LAYNE & BOWLER, INC. 128	SUNRAY OIL CORP. 125
Agency—Meldrum & Fawcett, Inc.	Agency—Greenhaw & Itush, Inc.	Agency—Watts, Payne Adv. Inc.
COLD METAL PRODUCTS CO. 196	THE LORD BALTIMORE HOTEL 134	SURFACE COMBUSTION CORP. 82
Agency—H. M. Klitzgen-Smith Co. Adv., Inc.	Agency—Emery Adv. Corp.	Agency—Hesson-Reichert, Inc.
COLORADO FUEL & IRON CORP. 65	LOWRY'S REPORTS, INC. 156	SYLVANIA DIV., AMERICAN VISCOSER CORP. 83
Agency—Doyle, Kitchen & McCormick, Inc.	Agency—Albert Frank-Guenther Law, Inc.	Agency—J. M. Mathes, Inc.
COMBUSTION CONTROL 122	LYCOMING DIVISIONS-AVCO MFG. CORP. 197	TINKEN ROLLER BEARING CO., 4th Cover
Agency—Horton-Notes Co.	Agency—Benton & Bowles, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.
COMBUSTION ENGINEERING, INC. 38	MAGNAFLUX CORP. 76	THE TORRINGTON CO. 177
Agency—G. M. Hasford Co.	Agency—Glen Agency, Inc.	Agency—Hazard Adv. Co.
CONNECTICUT TELEPHONE & ELECTRIC CORP. 114	P. R. MALLORY & CO., INC. 78	THE TRANE CO. 61
Agency—Haydon, Dukeshaire, Inc.	Agency—The Altkin-Kennett Co.	Agency—Campbell-Mithun, Inc.
CONSOLIDATED ENGINEERING CORP. 49	MARINE MIDLAND TRUST CO. OF NEW YORK 3	TRANS WORLD AIRLINES, INC. 70
Agency—Hixson & Jorgensen, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.
COPPERWELD STEEL CO. 52	MECHANICAL HANDLING SYSTEMS, INC. 14	TRAVELERS INSURANCE CO. 84
Agency—Marsteller, Gebhardt & Reed, Inc.	Agency—The Fred M. Randall Co.	Agency—Young & Rubicam, Inc.
S. H. COUCH CO., INC. 128	METALS & CONTROLS CORP. 168	TRAVELEYER CORP. 176
Agency—Charles H. Davis	SPENCER THERMOSTAT DIV. 168	Agency—Moore & Co., Inc.
CURTA CALCULATOR CO. 119	MICRO SWITCH DIV. MINNEAPOLIS-HONEYWELL REGULATOR CO. 99	TRUMBULL ELECTRIC DEPT. OF G. E. 46
Agency—Petesch, Hecht & O'Connor, Inc.	Agency—Reincke, Meyer & Finn, Inc.	Agency—Wilson, Haight, Welch & Grover, Inc.
DANLY MACHINE SPECIALTIES, INC. 9	MILLERS FALLS PAPER CO. 68	UNDERWOOD CORP. 37
Agency—Waldie & Briggs, Inc.	Agency—The Callaway Associates	Agency—Marshall & Pratt Co., Inc.
DIAMOND POWER SPECIALTY CORP. 129	MINNESOTA MINING & MFG. CO. 4-5, 46	UNITED STATES ENVELOPE CO. 188
Agency—Witte & Burden	Agency—Batten, Barton, Durstine & Osborn, Inc.	Agency—R. B. Leon Co., Inc.
A. D. DICK CO. 86	MOBILIFT CORP. 8	U. S. FIDELITY & GUARANTEE CO. 148
Agency—Fuller & Smith & Ross, Inc.	Agency—Don Allen & Assoc.	Agency—Van Sant, Dugdale & Co., Inc.
E. I. du PONT de NEMOURS & CO., 25, 95, 141	MODERN PLASTICS CO. 130	U. S. STEEL CORP. 62, 127, 155
Agency—Batten, Barton, Durstine & Osborn, Inc.	Agency—Media Promotion Org., Inc.	Agency—Batten, Barton, Durstine & Osborn, Inc.
THE EAGLE-PICHER SALES CO. 78	MODINE MFG. CO. 112	VIKING PUMP CO. 196
Agency—Needham, Louis & Brochy, Inc.	Agency—Klaus Van Peterson-Dunlap, Inc.	Agency—Walter E. Battfield Co.
EASTMAN CHEMICAL PRODUCTS, INC. 59	MOTOROLA COMMUNICATIONS & ELECTRONICS, INC. 12	WESTERN ELECTRIC CO. 2
Agency—Kenyon & Eckhardt, Inc.	Agency—Ruthrauff & Ryan, Inc.	Agency—Cunningham & Walsh, Inc.
EBASCO SERVICES, INC. 97	NATIONAL BEARING DIV. 182	WESTERN MARYLAND RAILWAY CO. 145
Agency—Albert Frank-Guenther Law, Inc.	Agency—Fuller & Smith & Ross, Inc.	Agency—Marshall & Pratt Co., Inc.
THOMAS A. EDISON, INC. (STORAGE BATTERY DIV.) 193	NATIONAL CAR RENTAL SYSTEM, INC. 68	WESTERN UNION TELEGRAPH CO. 113
Agency—Ketchum, MacLeod & Grove, Inc.	Agency—Tinsley, Inc.	Agency—Albert Frank-Guenther Law, Inc.
ELIER CO. 112	NATIONAL ELECTRICAL CONTRACTORS ASSOC. 160	WESTINGHOUSE ELECTRIC CORP., MOTORS & CONTROL DIV. 93
Agency—Fuller & Smith & Ross, Inc.	Agency—Fuller & Smith & Ross, Inc.	Agency—Fuller & Smith & Ross, Inc.
EVERSHARP, INC. 147	NATIONAL STEEL CO. 180-181	WESTINGHOUSE ELECTRIC CORP., AIR CONDITIONING DIV. 187
Agency—Blow Co., Inc.	Agency—Campbell-Ewald Co.	Agency—Fuller & Smith & Ross, Inc.
FEDERATED METALS DIVISION 82	NATIONAL TRUCK LEASING SYSTEM 176	WESTON ELECTRICAL INSTRUMENT CORP. 193
Agency—John Mather Lupton Co., Inc.	Agency—W. S. Kirkland	Agency—G. M. Hasford Co.
GALLMEYER & LIVINGSTON CO. 74	NETHLANDS INCENTRAL INSTITUTE 182	WILLYS MOTORS, INC. 176
Agency—W. S. Kirkland	Agency—The Franklin Fader Co.	Agency—Canada, Felt & Thurber, Inc.
GENERAL BOX CO. 158	NEVA-CLOG PRODS., INC. 129	WOLVERINE TUBE DIV., CALUMET & HECLA, INC. 85
Agency—The Huchen Co.	Agency—Wilson, Haight, Welch & Grover, Inc.	Agency—Charles M. Gray & Assoc.
GENERAL CONTROLS CO. 86		
Agency—Hixson & Jorgensen, Inc.		

Survival in the Twentieth Century

Civil defense is one of those ideas that everyone approves of—officially—while privately considering them nonsense. Many a businessman has sent a memo to the assistant to his third vice-president appointing him the company's CD coordinator and has turned down an offer of a post as chief warden for the suburb where he lives. And has let it go at that.

You can't blame him. Throughout the cold war period, a persistent aura of unreality has hung over everything concerning civil defense. Just about every program talked of was under a curse: It was so enormously expensive it would have fatally interfered with military expansion; it would take too long to be of any use in an early war; or it involved training large numbers of people and holding them in a state of psychological readiness quite impossible in peacetime.

A Fresh Look

This year, two important changes have occurred in the world. And it's time for the businessman—and everyone else—to take a fresh look at civilian defense. The changes:

- The threat of immediate war is fading.

- The threat of the atom is increasing. This is the long-warned-of year; Russia has demonstrated her capacity to wage a full scale atomic war. Britain is only a few years behind Russia. Soon every industrial nation will have its stockpile of bombs.

Starting now, we and our children will live in a world where atomic holocaust is a momentary possibility.

This is no temporary emergency to be dealt with and forgotten. It is a new world situation that will go on indefinitely. Except for the distant prospect of a world state and a world police force, no end to it is in sight or even imaginable. Atomic treaties may minimize the danger of surprise attack, but they cannot change the basic situation. It is just something we have to live with.

Changing Your Way of Life

In that kind of world, civil defense has a completely different meaning. It is no longer a matter of hurried preparation for a threatening war. It is a matter of adjusting our way of living—permanently—to a new reality.

This sort of thing has happened before. In the days of the Pax Romanum, the cities of Europe sprawled carelessly. When the Roman legions lost control of the frontiers, the cities pulled in on themselves, put up walls, became fortified towns. Now again we have lost control of the frontiers and must fortify.

The new way of living will bring changes no one can yet foresee. But the No. 1 change is obvious:

Reduction of density—reducing population density and industrial concentration.

All atomic weapons are area-sweeping devices. The

basic defense is to minimize the resources that can be destroyed in any given area.

Density reduction is not a thing to be achieved overnight. But over the years and the decades the country can grow into the new pattern. Fortunately, there is already a trend in this direction: People are swarming out of the cities into the suburbs; industries are decentralizing plants. But it will take intelligence and planning to push this trend along and to speed it, to prevent backward movements.

Government regulation and industrial policy should both be designed to throw every possible obstacle in the way of any action that increases density of population or industry at any point, to give every possible encouragement to moves that reduce density.

Businessmen have a key role in this new concept of civil defense. As civic leaders they have an obvious duty. And in simply doing business—in deciding where to build new plants, for example—they are involved in most of the individual decisions that will speed or slow the process of putting the nation in shape to survive in the second half of the twentieth century.

Looking Backward

Every businessman automatically and continuously assesses economic conditions. The National Assn. of Purchasing Agents is no exception. But it has carefully refrained from using the clouded crystal ball of prophecy. Instead, it has taken a look backward. It announces that present conditions "seem to be almost parallel with those of September, 1948, when the stage was being set for the 1949 recession."

The association notes that today, as in 1948, competition "is sharpening in most lines." Prices are softening, led by copper, zinc and lead. There have been more layoffs than hirings—as production fell off and students returned to school. In addition, overtime is "fast disappearing" as it did in 1949.

Another major similarity is that buying is again hand-to-mouth. Fully 75% of purchasing agents are buying for 60 days or under. This is the result of the drop in prices, the ready availability of materials, and falling backlogs. Unfilled orders, in fact, have declined in 1953 at exactly the same rate as in 1948.

One big difference is in the inventory situation. Today unworked inventories are much lower and in better balance.

There is always danger in comparing the present with the past. In this case, it might mean complacency. For the 1948-49 recession was only a mild dip, so that a repetition would hardly be a disaster.

The association does not carry the parallel this far. The situation, it says, "is not alarming, but calls for caution and close watching."

DOWNTIME IS GOING UP!

Double reason why you need Correct Lubrication!

Today, it costs you more in every way when one of your machines breaks down. It costs you more to replace parts — in some cases, as much as 100% more than in the last, so-called "normal" year. It costs more per man-hour for maintenance. And because your machines produce more today, it costs you more when downtime stops production.

That's why a program of Correct Lubrication is vital for your plant. This program includes an analysis of all your machines by a lubrication specialist, recommendations of the right lubricant for every machine, advice on correct application, progress reports on the benefits achieved.

In plant after plant, such a program has helped reduce downtime to record lows by improving machine efficiency — prolonging machine life. Why not see what it can do for you? Call in your Socony-Vacuum representative!



Socony-Vacuum *Correct Lubrication*
First Step in Cutting Costs

SOCONY-VACUUM OIL COMPANY, INC., and Affiliates: MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION

**KEEPING
AMERICA
ON THE GO**

with Timken Tapered Roller Bearings



You get all this with your new car —instead of a tool kit

REMEMBER the tool kit that used to come with every new car?

Full of shiny wrenches and hammers and pliers and screw drivers, all neatly tucked away in a fitted case?

You could almost have set up in the garage business with it. And you just about did.

Those were the days when Saturday afternoons were spent underneath the car getting it in shape for the Sunday drive. And when the choice of a spot for the family picnic was determined by where the car broke down.







They don't give you a tool kit anymore. Instead they give you all America, with freedom to roam it without fear of a breakdown. With no need for a tool kit.

We know something about the dependability that makes American cars the most wanted in the world, because we helped put it there.

Every American car but two uses Timken® tapered roller bearings. They're the most

accurate part bought for the car. They're built to outlast the car itself. They're made of steel so fine we have to make it ourselves.

Car makers could save themselves money by buying cheaper bearings. But their first aim is to keep America on the go. And that makes Timken tapered roller bearings their first choice.

Not just a ball  not just a roller  the Timken tapered roller  bearing takes radial  and thrust  loads or any combination .

AUTOMOBILE WHEEL BEARINGS



Timken bearings virtually eliminate friction, take both radial and thrust loads.

© 1953 THE TIMKEN ROLLER BEARING COMPANY
CANTON, OHIO, U.S.A. "TIMKENCO."